

Author Index

- ABAFFY, JOSEF: One class of dual matrix methods, 27: 93-102 (1979)
- ABARBANEL, S. AND GOTTLIEB, D.: On proving stability of multidimensional difference schemes, 11: 247-250 (1975)
- ABEL, ULRICH: On the stabilization of iterative processes, 43: 1-15 (1982)
- ACHILLES, EVA: Doubly stochastic matrices with some equal diagonal sums, 22: 293-296 (1978)
- ACZEL, J.: Solution of a system of functional-differential equations arising from an optimization problem, 71: 9-13 (1985)
- ACZEL, J. AND NG, C. T.: Determination of all semisymmetric recursive information measures of multiplicative type on n positive discrete probability distributions, 52: 1-30 (1983)
- ADIN, RON: Extreme positive operators on minimal and almost minimal cones, 44: 61-86 (1982)
- ADKINS, WILLIAM A.: The pointwise-local-global principle for solutions of generic linear equations, 66: 29-43 (1985)
- AFRIAT, S. N.: On sum-symmetric matrices, 8: 129-140 (1974)
- AGANAGIC, MUHAMED: On diagonal dominance in linear complementarity, 39: 41-49 (1981)
- AHAC, ALAN A., BUONI, JOHN J., AND OLESKY, D. D.: Stable LU factorization of H -matrices, 99: 97-110 (1988)
- ALEFELD, G. AND SCHNEIDER, N.: On square roots of M -matrices, 42: 119-132 (1982)
- ALEXANDER, S. T., PAN, C.-T., AND PLEMMONS, R. J.: Analysis of a recursive least squares hyperbolic rotation algorithm for signal processing, 98: 3-40 (1988)
- ALIKAKOS, N. AND BATES, P. W.: Estimates for the eigenvalues of the Jordan product of Hermitian matrices, 57: 41-56 (1984)
- ALIKAKOS, NICHOLAS D. AND BATES, PETER W.: Erratum: "Estimates for the eigenvalues of the Jordan product of Hermitian matrices", 65: 282 (1985)
- AMANN, HERBERT: Semigroups and nonlinear evolution equations: Proceedings of the symposium on operator theory (Athens, 1985), 84: 3-32 (1986)
- ANDERS, G. J.: See GUNN, E. A.
- ANDERSON, B. D. O.: Orthogonal decomposition defined by a pair of skew-symmetric forms, 8: 91-93 (1974)
- ANDERSON, B. D. O.: See Limebeer, D. J. N.
- ANDERSON, BRIAN D. O.: Structure of a class of unimodular matrices, 22: 167-174 (1978)
- ANDERSON, BRIAN D. O.: See Bitmead, Robert R.
- ANDERSON, BRIAN D. O. AND MOORE, JOHN B.: A matrix Kronecker lemma, 15: 227-234 (1976)
- ANDERSON, IAN M.: Determinantal ideals and the Capelli identities, 69: 269-277 (1985)
- ANDERSON, N., SAFF, E. B., AND VARGA, R. S.: On the Enestrom-Kakeya theorem and its sharpness, 28: 5-16 (1979)
- ANDERSON, T. W. AND OLKIN, I.: Maximum-likelihood estimation of the parameters of a multivariate normal distribution, 70: 147-171 (1985)
- ANDERSON, T. W. AND TAYLOR, JOHN B.: An inequality for a sum of quadratic forms with applications to probability theory, 30: 93-99 (1980)
- ANDERSON, W. N., JR., MORLEY, T. D., AND TRAPP, G. E.: Symmetric function means of positive operators, 60: 129-143 (1984)
- ANDERSON, WILLIAM N., JR. AND TRAPP, GEORGE E.: A class of monotone operator functions related to electrical network theory, 15: 53-67 (1976)
- ANDO, T.: Approximation in trace norm by positive semidefinite matrices, 71: 15-21 (1985)
- ANDO, T.: Concavity of certain maps on positive definite matrices and applications to Hadamard products, 26: 203-241 (1979)
- ANDO, T.: Generalized Schur complements, 27: 173-186 (1979)
- ANDO, T.: On the arithmetic-geometric-harmonic-mean inequalities for positive definite matrices, 52: 31-37 (1983)
- ANDO, T.: Totally positive matrices, 90: 165-219 (1987)
- ANDO, T. AND BUNCE, JOHN W.: The geometric mean, operator inequalities, and the Wheatstone bridge, 97: 77-91 (1987)
- ANDRES, T. H., HOSKINS, W. D., AND STANTON, R. G.: The determinant of a class of skew-

- symmetric Toeplitz matrices, 14: 179-186 (1976)
- ANDRESEN, PATRICIA: See Marcus, Marvin
- ANDREW, ALAN L.: Eigenvectors of certain matrices, 7: 151-162 (1973)
- ANSELONE, PHILIP M. AND LEE, JOHN W.: Spectral properties of integral operators with nonnegative kernels, 9: 67-87 (1974)
- ANSTREICHER, KURT M. AND ROTHBLUM, URIEL G.: Using Gauss-Jordan elimination to compute the index, generalized nullspaces, and Drazin inverse, 85: 221-239 (1987)
- ANTOULAS, A. C.: New results on the algebraic theory of linear systems: the solution of the cover problems, 50: 1-43 (1983)
- APPELGATE, HARRY AND ONISHI, HIRONORI: The similarity problem for 3×3 integer matrices, 42: 159-174 (1982)
- ARAZI, BENJAMIN: Some properties of Hadamard matrices generated recursively by Kronecker products, 25: 27-39 (1979)
- ARIOLI, M. AND LARATTA, A.: Error analysis of algorithms for computing the projection of a point onto a linear manifold, 82: 1-26 (1986)
- ARMS, R. J. AND SHISHA, O.: A representation of the norm in finite-dimensional normed linear spaces, 7: 173-174 (1973)
- ARNOLD, LUDWIG: Deterministic version of Wigner's semicircle law for the distribution of matrix eigenvalues, 13: 185-199 (1976)
- ARTZROUNI, MARC: A theorem on products of matrices, 49: 153-159 (1983)
- ARTZROUNI, MARC: On the convergence of infinite products of matrices, 74: 11-21 (1986)
- ASHLEY, JONATHAN: On the Perron-Frobenius eigenvector for nonnegative integral matrices whose largest eigenvalue is integral, 94: 103-108 (1987)
- ASPVALL, BENGT AND SHILOACH, YOSSE: A fast algorithm for solving systems of linear equations with two variables per equation, 34: 117-124 (1980)
- ATCHISON, T. A.: See Pye, W. C.
- ATHERTON, D. P.: See Mees, A. I.
- ATKINSON, M. D. AND LLOYD, S.: Bounds on the ranks of some 3-tensors, 31: 19-31 (1980)
- ATKINSON, M. D. AND STEPHENS, N. M.: On the maximal multiplicative complexity of a family of bilinear forms, 27: 1-8 (1979)
- ATTELA, MARC: Systemes polarises noyaux diminitifs de variation, 5: 347-373 (1972)
- AU-YEUNG, YIK HOI: On the semi-definiteness of the real pencil of two hermitian matrices, 10: 71-76 (1975)
- AU-YEUNG, YIK HOI: Some inequalities for the rational power of a nonnegative definite matrix, 7: 347-350 (1973)
- AU-YEUNG, YIK HOI AND POON, YIU TUNG: 3×3 orthostochastic matrices and the convexity of generalized numerical ranges, 27: 69-79 (1979)
- AUPETIT, BERNARD, LAFFEY, THOMAS J., AND ZEMANEK, JAROSLAV: Spectral classification of projections, 41: 131-135 (1981)
- AUPETIT, BERNARD AND ZEMANEK, JAROSLAV: Local behavior of the spectrum near algebraic elements, 52: 39-44 (1983)
- AUSLANDER, L., FEIG, E., AND WINOGRAD, S.: Direct sums of bilinear algorithms, 38: 175-192 (1981)
- AVDELAS, G. AND HADJIDIMOS, A.: Jordan-Wachspress parameters in three dimensions, 24: 251-261 (1979)
- AXELSSON, O.: A general incomplete block-matrix factorization method, 74: 179-190 (1986)
- AXELSSON, O., BRINKKEMPER, S., AND ILIN, V. P.: On some versions of incomplete block-matrix factorization iterative methods, 58: 3-15 (1984)
- AXELSSON, OWE: Conjugate gradient type methods for unsymmetric and inconsistent systems of linear equations, 29: 1-16 (1980)
- AXELSSON, OWE AND POLMAN, BEN: On approximate factorization methods for block matrices suitable for vector and parallel processors: Special volume on parallel computing, 77: 3-26 (1986)
- BACHEM, ACHIM AND KORTE, BERNHARD: Minimum norm problems over transportation polytopes, 31: 103-118 (1980)
- BAHL, CHRISTINA A. AND CAIN, BRYAN E.: The inertia of diagonal multiples of 3×3 real matrices, 18: 287-280 (1977)
- BAILEY, DUANE W. AND CRABTREE, DOUGLAS E.: Bounds for determinants, 2: 303-309 (1969)

- BAILEY, R. A.: Factorial design and abelian groups, 70: 349-368 (1985)
- BAKER, KIRBY A.: Strong shift equivalence and shear adjacency of nonnegative square integer matrices, 93: 131-147 (1987)
- BAKSALARY, J. K., KALA, R., AND KLACZYNSKI, K.: The matrix inequality $M \geq B^*MB$, 54: 77-86 (1983)
- BAKSALARY, J. K. AND KALA, R.: Symmetrizers of matrices, 35: 51-62 (1981)
- BAKSALARY, J. K. AND KALA, R.: The matrix equation $AXB + CYD = E$, 30: 141-147 (1980)
- BAKSALARY, J. K. AND KALA, R.: The matrix equation $AX - YB = C$, 25: 41-43 (1979)
- BAKSALARY, J. K. AND KALA, R.: Two relations between oblique and λ -orthogonal projectors, 24: 99-103 (1979)
- BAKSALARY, JERZY K.: A relationship between the star and minus orderings, 82: 163-167 (1986)
- BAKSALARY, JERZY K.: Strong unified-least-squares matrices for a general linear model, 70: 61-65 (1985)
- BAKSALARY, JERZY K. AND HAUKE, JAN: Partial orderings of matrices referring to singular values or eigenvalues, 96: 17-26 (1987)
- BAKSALARY, JERZY K. AND MARKIEWICZ, AUGUSTYN: Admissible linear estimators in restricted linear models, 70: 9-19 (1985)
- BAKSALARY, JERZY K. AND PUKELSHEIM, FRIEDRICH: A note on the matrix ordering of special C -matrices, 70: 263-267 (1985)
- BALAS, EGON: A duality theorem and an algorithm for (mixed-) integer nonlinear programming, 4: 341-352 (1971)
- BALASUBRAMANIAN, K.: On equality of some elements in matrices, 22: 135-138 (1978)
- BALL, JOSEPH A. AND GOHBERG, ISRAEL: Shift invariant subspaces, factorization, and interpolation for matrices. I. The canonical case, 74: 87-150 (1986)
- BALL, JOSEPH A. AND RAN, ANDRE C. M.: Global inverse spectral problems for rational matrix functions, 86: 237-282 (1987)
- BALLANTINE, C. S.: A note on the matrix equation $H = AP + PA$, 2: 37-47 (1969)
- BALLANTINE, C. S.: Numerical range of a matrix: some effective criteria, 19: 117-188 (1978)
- BALLANTINE, C. S.: Products of EP matrices, 12: 257-267 (1975)
- BALLANTINE, C. S.: Products of idempotent matrices, 19: 81-86 (1978)
- BALLANTINE, C. S., I: 261-280 (1968)
- BALLANTINE, C. S.: See Yip, E. L.
- BALLANTINE, C. S., PIERCE, STEPHEN, AND RODMAN, LEIBA: Simultaneous congruence of convex compact sets of Hermitian matrices with constant rank, 87: 49-60 (1987)
- BALLANTINE, C. S. AND YIP, E. L.: Congruence and conjunctivity of matrices, 32: 159-198 (1980)
- BALLANTINE, CHARLES S.: Products of positive definite matrices. IV, 3: 79-114 (1970)
- BANK, RANDOLPH E.: An automatic scaling procedure for a D'jkanov-Gunn iteration scheme, 28: 17-33 (1979)
- BANNAI, EIICHI: Tannaka-Krein duality for association schemes, 46: 83-90 (1982)
- BAPAT, R. AND RAGHAVAN, T. E. S.: On diagonal products of doubly stochastic matrices, 31: 71-75 (1980)
- BAPAT, R. B.: A bound for the permanent of the Laplacian matrix, 74: 219-223 (1986)
- BAPAT, R. B.: A stronger form of the Egorchev-Falikman theorem on permanents, 63: 95-100 (1984)
- BAPAT, R. B.: Applications of an inequality in information theory to matrices, 78: 107-117 (1986)
- BAPAT, R. B.: Inequalities for mixed Schur functions, 83: 143-149 (1986)
- BAPAT, R. B.: Two inequalities for the Perron root, 85: 241-248 (1987)
- BAPAT, R. B. AND KWONG, MAN KAM: A generalization of $A \circ A^{-1} \geq I$, 93: 107-112 (1987)
- BAPAT, R. B. AND SUNDER, V. S.: An extremal property of the permanent and the determinant, 76: 153-163 (1986)
- BAPAT, R. B. AND SUNDER, V. S.: On majorization and Schur products, 72: 107-117 (1985)
- BAPAT, RAVINDRA: D_1AD_2 theorems for multi-dimensional matrices, 48: 437-442 (1982)
- BAPAT, RAVINDRA: A matrix of permanents, 56: 57-62 (1984)
- BAPAT, RAVINDRA: Doubly stochastic matrices with equal subpermanents, 51: 1-8 (1983)

- BAPAT, RAVINDRA: On permanents of positive semidefinite matrices, **65**: 83-90 (1985)
- BARANY, I. AND GRINBERG, V. S.: On some combinatorial questions in finite-dimensional spaces, **41**: 1-9 (1981)
- BAREL, M. AND TAMIR, A.: Nested matrices and the existence of least majorized elements, **38**: 65-72 (1981)
- BARKER, G. P.: See Poole, G. D.
- BARKER, G. P., EIFLER, L. Q., AND KEZLAN, T. P.: A non-commutative spectral theorem, **20**: 95-100 (1978)
- BARKER, G. P. AND SCHNEIDER, HANS: Algebraic Peirce-Frobenius theory, **11**: 219-233 (1975)
- BARKER, G. P., TAM, B. S., AND DAVILA, NORBIL: A geometric Gordan-Stiemke theorem, **61**: 83-89 (1984)
- BARKER, G. P. AND TURNER, R. E. L.: Some observations on the spectra of cone preserving maps, **6**: 149-153 (1973)
- BARKER, GEORGE P.: See Shangjun, Yang
- BARKER, GEORGE PHILIP AND FORAN, JAMES: Self-dual cones in Euclidean spaces: Collection of articles dedicated to Olga Tausky Todd, **13**: 147-155 (1976)
- BARKER, GEORGE PHILLIP: Common solutions to the Lyapunov equations, **16**: 233-235 (1977)
- BARKER, GEORGE PHILLIP: Matricial norms over cones, **6**: 175-182 (1973)
- BARKER, GEORGE PHILLIP: Perfect cones, **22**: 211-221 (1978)
- BARKER, GEORGE PHILLIP: The lattice of faces of a finite dimensional cone, **7**: 71-82 (1973)
- BARKER, GEORGE PHILLIP: Theory of cones, **39**: 263-291 (1981)
- BARKER, GEORGE PHILLIP, HILL, RICHARD D., AND HAERTEL, RAYMOND D.: On the completely positive and positive-semidefinite-preserving cones, **56**: 221-229 (1984)
- BARKER, GEORGE PHILLIP AND LOEWY, RAPHAEL: The structure of cones of matrices, **12**: 87-94 (1975)
- BARKER, GEORGE PHILLIP AND TAM, BIT SHUN: Graphs for cone preserving maps, **37**: 199-204 (1981)
- BARNES, E. R. AND HOFFMAN, A. J.: On bounds for eigenvalues of real symmetric matrices, **40**: 217-223 (1981)
- BARNETT, S.: Greatest common divisor of two polynomials, **3**: 7-9 (1970)
- BARNETT, S.: Location of zeros of a complex polynomial, **4**: 71-76 (1971)
- BARNETT, S.: See Cover, M. J. C.
- BARNETT, S.: See Joyce, G. T.
- BARNETT, S.: See Shane, B. A.
- BARNETT, S. AND JURY, E. I.: Innors and Schur complement, **22**: 57-63 (1978)
- BARNETT, STEPHEN: A companion matrix analogue for orthogonal polynomials, **12**: 197-208 (1975)
- BARNETT, STEPHEN: Congenial matrices, **41**: 277-298 (1981)
- BARNETT, STEPHEN: Division of generalized polynomials using the comrade matrix, **60**: 159-175 (1984)
- BARNETT, STEPHEN: Euclidean remainders for generalized polynomials, **99**: 111-122 (1988)
- BARNETT, STEPHEN: Note on inversion of certain block-partitioned matrices: Collection of articles dedicated to Olga Tausky Todd, **13**: 133-137 (1976)
- BARNETT, STEPHEN: See Maroulas, John
- BARRETT, WAYNE W.: A theorem on inverses of tridiagonal matrices, **27**: 211-217 (1979)
- BARRETT, WAYNE W.: Toeplitz matrices with banded inverses, **57**: 131-145 (1984)
- BARRETT, WAYNE W.: See Johnson, Charles R.
- BARRETT, WAYNE W. AND FEINSILVER, PHILIP J.: Inverses of banded matrices, **41**: 111-130 (1981)
- BARRETT, WAYNE W. AND JOHNSON, CHARLES R.: Determinantal formulae for matrices with sparse inverses. II. Asymmetric zero patterns, **81**: 237-261 (1986)
- BARRETT, WAYNE W. AND JOHNSON, CHARLES R.: Determinantal formulae for matrices with sparse inverses, **56**: 73-88 (1984)
- BARRETT, WAYNE W. AND JOHNSON, CHARLES R.: Possible spectra of totally positive matrices, **62**: 231-233 (1984)
- BART, H.: Transfer functions and operator theory: Proceedings of the symposium on operator theory (Athens, 1985), **84**: 33-61 (1986)
- BARTELS, RICHARD: A penalty linear programming method using reduced-gradient basis-

- exchange techniques, 29: 17-32 (1980)
- BARWICK, DAVID T. AND GILBERT, JIMMIE D.: Generalizations of the reverse order law with related results, 8: 345-349 (1974)
- BASKETT, THOMAS S. AND KATZ, IRVING J.: Theorems on products of EP , matrices, 2: 87-103 (1969)
- BATES, P. W.: See Alikakos, N.
- BATES, PETER W.: See Alikakos, Nicholas D.
- BATTIGNE, DANIEL: Integral generalized inverses of integral matrices, 22: 125-134 (1978)
- BAUER, F. L., DEUTSCH, E., AND STOER, J.: Abschätzungen für die Eigenwerte positiver linearer Operatoren, 2: 275-301 (1969)
- BAXTER, DAVID K.: The existence of matrices with prescribed characteristic and permanent polynomials, 22: 175-189 (1978)
- BEARD, JACOB T. B., JR.: Matrix fields, regular and irregular: a complete fundamental characterization, 81: 137-152 (1986)
- BEARD, JACOB T. B., JR. AND McCONNEL, ROBERT M.: Matrix fields over the integers modulo m , 14: 95-105 (1976)
- BEASLEY, E. T., JR. AND GIBSON, P. M.: A generalization of doubly stochastic matrices over a field, 10: 241-257 (1975)
- BEASLEY, LeROY B.: Linear transformations on matrices: The invariance of rank k matrices, 3: 407-427 (1970)
- BEASLEY, LeROY B.: Linear transformations on matrices: the invariance of sets of ranks, 48: 25-35 (1982)
- BEASLEY, LeROY B.: Linear transformations which preserve fixed rank, 40: 183-187 (1981)
- BEASLEY, LeROY B.: Rank- k -preservers and preservers of sets of ranks, 55: 11-17 (1983)
- BEASLEY, LeROY B.: Spaces of matrices of equal rank, 38: 227-237 (1981)
- BEASLEY, LeROY B.: The mathematical work of Joel Lee Brenner: With contributions by R. P. Boas, John de Pillis, Roger Lyndon, and James Wiegold, 90: 1-13 (1987)
- BEASLEY, LeROY B., GREGORY, DAVID A., AND PULLMAN, NORMAN J.: Nonnegative rank-preserving operators, 65: 207-223 (1985)
- BEASLEY, LeROY B. AND PULLMAN, NORMAN J.: Boolean-rank-preserving operators and Boolean-rank-1 spaces, 59: 55-77 (1984)
- BEASLEY, LeROY B. AND PULLMAN, NORMAN J.: Fuzzy rank-preserving operators, 73: 197-211 (1986)
- BEASLEY, LeROY B. AND PULLMAN, NORMAN J.: Operators that preserve semiring matrix functions, 99: 199-216 (1988)
- BEASLEY, LeROY B. AND PULLMAN, NORMAN J.: Term-rank, permanent, and rook-polynomial preservers, 90: 33-46 (1987)
- BEAUWENS, ROBERT: Lower eigenvalue bounds for pencils of matrices, 85: 101-119 (1987)
- BEAUWENS, ROBERT: On Axelsson's perturbations, 68: 221-242 (1985)
- BEAUWENS, ROBERT: Upper eigenvalue bounds for pencils of matrices, 82: 87-104 (1984)
- BEBIANO, N.: See da Providencia, J.
- BEBIANO, NATALIA: Some analogies between the c -numerical range and a certain variation on this concept, 81: 47-54 (1986)
- BEBIANO, NATALIA AND DA PROVIDENCIA, J.: On the determinant of certain strictly dissipative matrices, 83: 117-128 (1986)
- BEBIANO, NATALIA AND QUEIRO, JOAO FILIPE: The determinant of the sum of two normal matrices with prescribed eigenvalues, 71: 23-28 (1985)
- BECKER, RONALD I.: Necessary and sufficient conditions for the simultaneous diagonalizability of two quadratic forms, 30: 129-139 (1980)
- BEESACK, PAUL R.: The spread of matrices and polynomials, 31: 145-149 (1980)
- BEEZER, ROBERT A.: On the polynomial of a path, 63: 221-225 (1984)
- BEEZER, ROBERT A.: Trivalent orbit polynomial graphs, 73: 133-146 (1986)
- BELL, C. LEARY: Generalized inverses of circulant and generalized circulant matrices, 39: 123-142 (1981)
- BELLISSARD, JEAN, IOCHUM, BRUNO, AND LIMA, RICARDO: Homogeneous and facially homogeneous self-dual cones, 19: 1-16 (1978)
- BELLMAN, RICHARD: Some inequalities for the square root of a positive definite matrix, 1: 321-324 (1968)

- BEN-ARTZI, A., ELLIS, R. L., COHBERG, I., AND LAY, D. C.: The maximum distance problem and band sequences, 87: 93-112 (1987)
- BEN-ARTZI, ASHER AND SHALOM, TAMIR: On inversion of Toeplitz and close to Toeplitz matrices, 75: 173-192 (1986)
- BEN-ISRAEL, ADI: A Cramer rule for least-norm solutions of consistent linear equations, 43: 223-226 (1982)
- BEN-ISRAEL, ADI: See Berman, Abraham
- BEN-ISRAEL, ADI: See Roberts, Philip D.
- BENDER, EDWARD A.: Classes of matrices and quadratic fields, 1: 195-201 (1968)
- BENDER, EDWARD A.: The dimensions of symmetric matrices with a given minimum polynomial, 3: 115-123 (1970)
- BENEDETTI, R. AND CRAGNOLINI, P.: On simultaneous diagonalization of one Hermitian and one symmetric form, 57: 215-226 (1964)
- BENNETT, GRAHAME: Lower bounds for matrices, 82: 81-98 (1986)
- BENSON, R. V. AND SHIFLETT, R. C.: Doubly stochastic matrices over arbitrary vector spaces and the Birkhoff theorem, 42: 145-158 (1982)
- BERCOVICI, HARI: Note on property (A_1) , 91: 213-216 (1987)
- BERENSTEIN, CARLOS A. AND STRUPPA, DANIELE C.: Small degree solutions for the polynomial Bezout equation, 98: 41-55 (1988)
- BERG, LOTHAR: General operational calculus: Proceedings of the symposium on operator theory (Athens, 1985), 84: 79-97 (1986)
- BERG, LOTHAR: Three results in connection with inverse matrices: Proceedings of the symposium on operator theory (Athens, 1985), 84: 63-77 (1986)
- BERGER, MARC A. AND FELZENBAUM, ALEXANDER: Sign patterns of matrices and their inverses, 86: 161-177 (1987)
- BERKEY, DENNIS D.: A Gerschgorin theorem for difference equations. II, 14: 87-94 (1976)
- BERKEY, DENNIS D.: A Gerschgorin theorem for linear difference equations and eigenvalues of matrix products, 11: 27-40 (1975)
- BERKOVITS, JUHA: On the degree theory for mappings of monotone type and applications: Proceedings of the symposium on operator theory (Athens, 1985), 84: 243-249 (1986)
- BERKOWITZ, S.: Extrema of elementary symmetric polynomials of the eigenvalues of the matrix $P^*KP + L$, 8: 273-280 (1974)
- BERMAN, A. AND PLEMMONS, R. J.: Eight types of matrix monotonicity: Collection of articles dedicated to Olga Taussky Todd, 13: 115-123 (1976)
- BERMAN, A., VARGA, R. S., AND WARD, R. C.: \mathcal{LPS} : matrices with nonpositive off-diagonal entries, 21: 233-244 (1978)
- BERMAN, ABRAHAM: Matrices and the linear complementarity problem, 40: 249-256 (1981)
- BERMAN, ABRAHAM: Nonnegative matrices which are equal to their generalized inverse, 9: 261-265 (1974)
- BERMAN, ABRAHAM: See Hershkowitz, Daniel
- BERMAN, ABRAHAM: See Kessler, Ofra
- BERMAN, ABRAHAM: See Shasha, Dafna
- BERMAN, ABRAHAM AND BEN-ISRAEL, ADI: Linear equations over cones with interior: A solvability theorem with applications to matrix theory, 7: 139-149 (1973)
- BERMAN, ABRAHAM, CENSOR, YAIR, AND SCHNEIDER, HANS: Haifa 1985 conference on matrix theory, 80: 173-260 (1986)
- BERMAN, ABRAHAM AND GAIHA, PRABHA: A generalization of irreducible monotonicity, 5: 29-38 (1972)
- BERMAN, ABRAHAM, HERSHKOWITZ, DANIEL, AND JOHNSON, CHARLES R.: Linear transformations that preserve certain positivity classes of matrices, 68: 9-29 (1985)
- BERMAN, ABRAHAM AND HERSHKOWITZ, DANIEL: Characterization of acyclic D -stable matrices, 58: 17-31 (1984)
- BERMAN, ABRAHAM AND HERSHKOWITZ, DANIEL: Combinatorial results on completely positive matrices, 95: 111-125 (1987)
- BERMAN, ABRAHAM AND KOTZIG, ANTON: The length of a $(0, 1)$ matrix, 20: 197-203 (1978)
- BERMAN, ABRAHAM, NEUMANN, MICHAEL, AND STERN, RONALD J.: Cone reachability for nondiagonalable linear differential systems, 81: 263-280 (1986)
- BERMAN, ABRAHAM AND SAUNDERS, B. DAVID:

- Matrices with zero line sums and maximal rank, 40: 229-235 (1981)
- BERMAN, ABRAHAM AND STERN, RONALD J.: Linear feedback, irreducibility, and M -matrices, 97: 141-152 (1987)
- BERMAN, ABRAHAM AND WARD, ROBERT C.: *ALPS*: classes of stable and semipositive matrices, 21: 163-174 (1978)
- BEVIS, JEAN H., HALL, FRANK J., AND HARTWIG, ROBERT E.: The Drazin inverse of a semilinear transformation and its matrix representation, 97: 229-242 (1987)
- BEVIS, JEAN H., HALL, FRANK J., AND HARTWIG, ROBERT E.: 90: 73-80 (1987)
- BEVIS, JEAN H., HALL, FRANK J., AND KATZ, IRVING J.: Integer generalized inverses of incidence matrices, 39: 247-258 (1981)
- BEVIS, JEAN H. AND HALL, FRANK J.: Some classes of integral matrices, 48: 473-483 (1982)
- BHATIA, RAJENDRA: On the rate of change of spectra of operators. II, 36: 25-32 (1981)
- BHATIA, RAJENDRA: Variation of symmetric tensor powers and permanents, 62: 269-276 (1984)
- BHATIA, RAJENDRA, DAVIS, CHANDLER, AND MCINTOSH, ALAN: Perturbation of spectral subspaces and solution of linear operator equations, 52: 45-67 (1983)
- BHATIA, RAJENDRA AND FRIEDLAND, SHMUEL: Variation of Grassmann powers and spectra, 40: 1-18 (1981)
- BHATIA, RAJENDRA AND HOLBROOK, JOHN A. R.: Unitary invariance and spectral variation, 95: 43-68 (1987)
- BHATIA, RAJENDRA AND MUKHERJEA, KALYAN K.: On the rate of change of spectra of operators, 27: 147-157 (1979)
- BHATTACHARYYA, S. P.: See de Souza, Eurice
- BHATTACHARYYA, S. P., KEEL, L. H., AND HOWZE, J. W.: Stabilization of linear systems with fixed order controllers, 98: 57-76 (1988)
- BIALAS, S. AND GARLOFF, J.: Intervals of P -matrices and related matrices, 58: 33-41 (1984)
- BIEGLER-KONIG, FRIEDRICH W.: Construction of band matrices from spectral data, 40: 79-87 (1981)
- BIEGLER-KONIG, FRIEDRICH W.: Sufficient conditions for the solubility of inverse eigenvalue problems, 40: 89-100 (1981)
- BIER, THOMAS: A distribution invariant for association schemes and strongly regular graphs, 57: 105-113 (1984)
- BIERI, H. AND NEF, W.: A sweep-plane algorithm for computing the volume of polyhedra represented in Boolean form, 52: 69-97 (1983)
- BIGGS, NORMAN: Cirth, valency, and excess, 31: 55-59 (1980)
- BINDING, PAUL: The inertia of a Hermitian pencil, 63: 179-191 (1984)
- BINI, DARIO: Border rank of $m \times n \times (mn - q)$ tensors, 79: 45-51 (1986)
- BINI, DARIO AND CAPOVANI, MILVIO: Spectral and computational properties of band symmetric Toeplitz matrices, 52: 99-126 (1983)
- BIRD, CHARLES G.: On the stability of a class of noncooperative games, 40: 119-127 (1981)
- BISTRITZ, YUVAL AND KAILATH, THOMAS: Inversion and factorization of non-Hermitian quasi-Toeplitz matrices, 98: 77-121 (1988)
- BITMEAD, ROBERT R. AND ANDERSON, BRIAN D. O.: Asymptotically fast solution of Toeplitz and related systems of linear equations, 34: 103-116 (1980)
- BIXBY, ROBERT E.: A simple theorem on 3-connectivity, 45: 123-126 (1982)
- BJORCK, A.: Stability analysis of the method of seminormal equations for linear least squares problems, 88: 31-48 (1987)
- BJORCK, A. AND DUFF, I. S.: A direct method for the solution of sparse linear least squares problems, 34: 43-67 (1980)
- BJORCK, AKE AND HAMMARLING, SVEN: A Schur method for the square root of a matrix, 52: 127-140 (1983)
- BLOKHUIS, A. AND SEIDEL, J. J.: Remark on Wielandt's visibility theorem, 71: 29-30 (1985)
- BODE, ALBERT: Symmetrien und Antisymmetrien der Robert'schen Quasiordnung in Matrizenraumen, 23: 87-99 (1979)
- BOJANCZYK, A. AND BRENT, R. P.: Parallel solution of certain Toeplitz least-squares problems: Special volume on parallel computing, 77: 43-60 (1986)

- BOJANCZYK, A. W.: Systolic implementation of the lattice algorithm for least squares linear prediction problems: Special volume on parallel computing, 77: 27-42 (1986)
- BOLLA, MICHAEL L.: Isomorphisms between infinite matrix rings, 69: 239-247 (1985)
- BOLZERN, PAOLO AND COLANERI, PATRIZIO: Inertia theorems for the periodic Lyapunov difference equation and periodic Riccati difference equation, 85: 249-265 (1987)
- BONDAR, JAMES V.: Convexity of acceptance regions of multivariate tests, 67: 195-199 (1985)
- BONE, TERRENCE: Positive feedback may sometimes promote stability, 51: 143-151 (1983)
- BOSE, N. K.: Matrix factorization in a real field, 11: 21-25 (1975)
- BOSE, N. K.: Robust multivariate scattering Hurwitz interval polynomials, 98: 123-136 (1988)
- BOTTA, PETER: Linear maps that preserve singular and nonsingular matrices, 20: 45-49 (1978)
- BOTTA, PETER AND WILLIAMSON, S. G.: Unitary similarity of symmetry operators, 3: 249-256 (1970)
- BOULLION, T. L.: See Pye, W. C.
- BOYARSKY, ABRAHAM: See Friedman, Nathan
- BOYD, DAVID W.: The power method for l^p norms, 9: 95-101 (1974)
- BRADLEY, GERALD LEE: The eigenvalue set of a class of equimodular matrices, 2: 105-116 (1969)
- BRAUER, ALFRED AND GENTRY, IVEY C.: Bounds for the greatest characteristic root of an irreducible nonnegative matrix. II: Collection of articles dedicated to Olga Taussky Todd, 13: 109-114 (1976)
- BRAUER, ALFRED AND GENTRY, IVEY C.: Bounds for the greatest characteristic root of an irreducible nonnegative matrix, 8: 105-107 (1974)
- BRAUER, ALFRED AND GENTRY, IVEY C.: Some remarks on tournament matrices, 5: 311-318 (1972)
- BRAUER, ALFRED T.: Alfred T. Brauer as a mathematician and teacher, 59: 1-17 (1984)
- BRAWLEY, J. V.: A note on polynomial matrix functions over a finite field, 28: 35-38 (1979)
- BRAWLEY, J. V., CARLITZ, L., AND LEVINE, JACK: Scalar polynomial functions on the $n \times n$ matrices over a finite field, 10: 199-217 (1975)
- BRAWLEY, J. V. AND CARLITZ, L.: Enumeration of matrices with prescribed row and column sums, 6: 165-174 (1973)
- BRAWLEY, J. V. AND GAMBLE, R. O.: Involutory matrices over finite commutative rings, 21: 175-188 (1978)
- BRAWLEY, J. V. AND HANKINS, MAX: On distribution by rank of bases for vector spaces of matrices over a finite field, 39: 91-101 (1981)
- BRAWLEY, J. V. AND SCHNIBBEN, GEORGE E.: Polynomials which permute the matrices over a field, 86: 145-160 (1987)
- BRAWLEY, JOEL, JR.: On the ranks of bases of vector spaces of matrices, 3: 51-55 (1970)
- BREBNER, M. A. AND GRAD, J.: Eigenvalues of $Ax = \lambda Bx$ for real symmetric matrices A and B computed by reduction to a pseudo-symmetric form and the HR process, 43: 99-118 (1982)
- BREMSE, PRISCILLA S.: A generalization of Gaussian sums to vector spaces over finite fields, 81: 35-45 (1986)
- BRENNER, J. L.: Applications of the Dieudonné determinant, 1: 511-536 (1968)
- BRENNER, J. L.: Corrections to "Applications of the Dieudonné determinant" (Linear Algebra and Appl. 1 (1968), 511 - 536), 13: 289 (1976)
- BRENNER, J. L. AND WANG, EDWARD T. H.: Permanent pairs of doubly stochastic matrices. II, 28: 39-41 (1979)
- BRENNER, JOEL: See de Pillis, John
- BRENNER, JOEL LEE: The mathematical work of Joel Lee Brenner: With contributions by R. P. Boas, John de Pillis, Roger Lyndon, and James Wiegold, 90: 1-13 (1987)
- BRENT, R. P.: See Bojanczyk, A.
- BRESINSKY, HENRIK: Minimal free resolutions of monomial curves in \mathbb{P}_k^3 , 59: 121-129 (1984)
- BREWER, JAMES AND KLINGLER, LEE: Dynamic feedback over commutative rings, 98: 137-168 (1988)

- BREZINSKI, CLAUDE: Computation of the eigenvalues of a matrix by the epsilon-algorithm, 11: 7-20 (1975)
- BREZINSKI, CLAUDE: Some results in the theory of the vector epsilon-algorithm, 8: 77-86 (1974)
- BRIDGES, W. G.: Algebraic duality theorems with combinatorial applications, 22: 157-162 (1978)
- BRIDGES, W. G. AND MENA, R. A.: On the rational spectra of graphs with abelian Singer groups, 46: 51-60 (1982)
- BRINKKEMPER, S.: See Axelsson, O.
- BROADIE, MARK N.: A theorem about antiprisms, 66: 99-111 (1985)
- BROCKETT, R. W.: Linear feedback systems and the groups of Galois and Lie, 50: 45-60 (1983)
- BROCKETT, ROGER W. AND DOBKIN, DAVID: On the optimal evaluation of a set of bilinear forms, 19: 207-235 (1978)
- BROWNE, M. W.: The information matrix for image factor analysis, 70: 51-59 (1985)
- BROWNE, M. W. AND SHAPIRO, A.: The asymptotic covariance matrix of sample correlation coefficients under general conditions, 82: 169-176 (1986)
- BRUALDI, R. A. AND CSIMA, J.: Extremal plane stochastic matrices of dimension three, 11: 105-133 (1975)
- BRUALDI, R. A. AND HOFFMAN, A. J.: On the spectral radius of $(0,1)$ -matrices, 65: 133-146 (1985)
- BRUALDI, R. A. AND SHANNY, R. F.: A set intersection problem, 9: 143-147 (1974)
- BRUALDI, RICHARD A.: Combinatorial verification of the elementary divisors of tensor products, 71: 31-47 (1985)
- BRUALDI, RICHARD A.: Matrices of zeros and ones with fixed row and column sum vectors, 33: 159-231 (1980)
- BRUALDI, RICHARD A.: The doubly stochastic matrices of a vector majorization, 61: 141-154 (1984)
- BRUALDI, RICHARD A. AND GIBSON, PETER M.: Convex polyhedra of doubly stochastic matrices. IV, 15: 153-172 (1976)
- BRUALDI, RICHARD A. AND HEDRICK, MARK B.: A unified treatment of nearly reducible and nearly decomposable matrices, 24: 51-73 (1979)
- BRUALDI, RICHARD A. AND LEE, GEOFFREY M.: On the truncated assignment polytope, 19: 33-62 (1978)
- BRUALDI, RICHARD A. AND LEWIN, MORDECHAI: On powers of nonnegative matrices, 43: 87-97 (1982)
- BRUALDI, RICHARD A. AND LI, QIAO: Small diameter interchange graphs of matrices of zeros and ones, 46: 177-194 (1982)
- BRUALDI, RICHARD A. AND ROSS, JEFFREY A.: On Ryser's maximum term rank formula, 29: 33-38 (1980)
- BRUALDI, RICHARD A. AND RYSER, H. J.: Classes of matrices associated with the optimal assignment problem, 81: 1-17 (1986)
- BRUALDI, RICHARD A. AND SOLHEID, ERNIE S.: On the minimum spectral radius of matrices of zeros and ones, 85: 81-100 (1987)
- BRUALDI, RICHARD A. AND WIELANDT, HELMUT W.: A spectral characterization of stochastic matrices, 1: 65-72 (1968)
- BRUCKSTEIN, A.: See Kailath, T.
- BRUCKSTEIN, ALFRED AND KAILATH, THOMAS: Some matrix factorization identities for discrete inverse scattering, 74: 157-172 (1986)
- BRUEN, A. A. AND FREEMAN, J. W.: Intersections of t -reguli, rational curves, and orthogonal Latin squares, 46: 103-116 (1982)
- BRUNING, JOCHEN: Diagonalization of holomorphic functions with values in W^* -algebras, 56: 131-138 (1984)
- BRUNING, JOCHEN, KIM, KI HANG, AND ROUSH, FRED N.: On a conjecture of S. V. Phadke and N. K. Thakare: Generalized inverses and operator equations, 32: 113-114 (1980) Appl. 23 (1979) 191-199; MR 80b:47017, 32: 113-114 (1980)
- BRUNO, JOHN AND WEINBERG, LOUIS: The principal minors of a matroid, 4: 17-54 (1971)
- BYLAWSKI, TOM: Finite prime-field characteristic sets for planar configurations, 46: 155-176 (1982)
- BUCHI, WERNER AND CLAUSEN, MICHAEL: On a class of primary algebras of minimal rank, 69: 249-268 (1985)
- BUCKNER, HANS F.: A minimal property of the Jordan canonical form, 1: 503-510 (1968)

- BUNCE, JOHN W.: See Ando, T.
- BUNCH, JAMES R.: The weak and strong stability of algorithms in numerical linear algebra, 88: 49-66 (1987)
- BUNCH, JAMES R. AND KAUFMAN, LINDA: A computational method for the indefinite quadratic programming problem, 34: 341-370 (1980)
- BUNSE-GERSTNER, A.: An algorithm for the symmetric generalized eigenvalue problem, 58: 43-68 (1984)
- BUNSE-GERSTNER, A.: An analysis of the HR algorithm for computing the eigenvalues of a matrix, 35: 155-173 (1981)
- BUNSE-GERSTNER, ANGELIKA: Matrix factorizations for symplectic QR-like methods, 83: 49-77 (1986)
- BUONI, J. J. AND SUBRAMANIAN, B.: A Stein-Rosenberg theorem for rectangular matrices, 48: 177-190 (1982)
- BUONI, JOHN J.: See Ahac, Alan A.
- BUONI, JOHN J., NEUMANN, MICHAEL, AND VARGA, RICHARD S.: Theorems of Stein-Rosenberg type. III. The singular case, 42: 183-198 (1982)
- BURGOYNE, N. AND CUSHMAN, R.: The decomposition of a linear mapping, 8: 515-519 (1974)
- BURKILL, H. AND PERFECT, HAZEL: Leon Mirsky, 1918-1983, 61: 1-10 (1984)
- BURLANDO, LAURA: On two subsets of a Banach algebra that are related to the continuity of spectrum and spectral radius: Proceedings of the symposium on operator theory (Athens, 1985), 84: 251-269 (1986)
- BURNS, FENNELL, FIEDLER, MIROSLAV, AND HAYNSWORTH, EMILIE: Polyhedral cones and positive operators, 8: 547-559 (1974)
- BUSH, K. A.: On Hadamard embeddability, 29: 39-52 (1980)
- BUSHELL, P. J.: On solutions of the matrix equation $T^*AT = A^2$, 8: 465-469 (1974)
- BUSHELL, P. J.: The Cayley-Hilbert metric and positive operators: Proceedings of the symposium on operator theory (Athens, 1985), 84: 271-280 (1986)
- BUTKOVIC, PETER, CECILAROVA, KATAVINA, AND SZABO, PETER: Strong linear independence in bottleneck algebra, 94: 133-155 (1987)
- BUTLER, KIM KI-HANG: The number of idempotents in $(0, 1)$ -matrix semigroups, 5: 233-246 (1972)
- BUTLER, P.: See Cantoni, A.
- BUTLER, WILLIAM AND KAPLANSKY, IRVING: A curious property of three-by-three matrices and an application to orders, 6: 269-272 (1973)
- BUTTS, HUBERT S. AND ESTES, DENNIS: Modules and binary quadratic forms over integral domains, 1: 153-180 (1968)
- BUTZER, P. L. AND STENS, R. L.: The Euler-MacLaurin summation formula, the sampling theorem, and approximate integration over the real axis, 52: 141-155 (1983)
- BYERS, RALPH: Solving the algebraic Riccati equation with the matrix sign function, 85: 267-279 (1987)
- BYERS, V.: Non-Archimedean norms and bounds, 3: 57-77 (1970)
- BYERS, W.: Matrices induced by endomorphisms of finite sets, 93: 81-92 (1987)
- BYRD, KEN AND VAUGHAN, THERESA P.: A group of integral points in a matrix parallelepiped, 30: 155-166 (1980)
- BYRNES, CHRISTOPHER I.: On a theorem of Hermite and Hurwitz, 50: 61-101 (1983)
- CABRERA, JAVIER F. AND WATSON, GEOFFREY S.: The algebra of hyperboloids of revolution, 70: 115-130 (1985)
- CAFLISCH, RUSSEL E.: An inverse problem for Toeplitz matrices and the synthesis of discrete transmission lines, 38: 207-225 (1981)
- CAI, D. Y.: See Varga, R. S.
- CAIN, B. E.: Corrections to: "Inertia theory" (Linear Algebra Appl. 30: 211-240 (1980)), 42: 285-286 (1982)
- CAIN, BRYAN E.: Hermitian congruence for matrices with semidefinite real part and for H-stable matrices, 7: 43-52 (1973)
- CAIN, BRYAN E.: Inertia theory, 30: 211-240 (1980)
- CAIN, BRYAN E.: Inside the D-stable matrices, 56: 237-243 (1984)
- CAIN, BRYAN E.: The inertia of a Hermitian matrix having prescribed diagonal blocks, 37: 173-180 (1981)
- CAIN, BRYAN E.: See Bahl, Christina A.

- CAIN, BRYAN E. AND MARQUES DE SA, E.: The inertia of a Hermitian matrix having prescribed complementary principal submatrices, 37: 161-171 (1981)
- CALDERBANK, ROBERT: A good method of combining codes, 32: 115-124 (1980)
- CALDERON, A.-P.: A note on biquadratic forms, 7: 175-177 (1973)
- CALOGERO, F.: Isospectral matrices and classical polynomials, 44: 55-60 (1982)
- CALOGERO, F. AND PERELOMOV, A. M.: Some Diophantine relations involving circular functions of rational angles, 25: 91-94 (1979)
- CAMERON, P. J. AND LIEBLER, R. A.: Tactical decompositions and orbits of projective groups, 46: 91-102 (1982)
- CAMPBELL, STEPHEN L.: Limit behavior of solutions of singular difference equations, 23: 167-178 (1979)
- CAMPBELL, STEPHEN L.: On continuity of the Moore-Penrose and Drazin generalized inverses, 18: 53-57 (1977)
- CAMPBELL, STEPHEN L. AND MEYER, CARL D., JR.: Continuity properties of the Drazin pseudoinverse, 10: 77-83 (1975)
- CAMPBELL, STEPHEN L. AND MEYER, CARL D., JR.: Weak Drazin inverses, 20: 167-178 (1978)
- CAMPBELL, STEPHEN L. AND POOLE, GEORGE D.: Computing nonnegative rank factorizations, 35: 175-182 (1981)
- CAMPOS, TANIA M. M.: See Micali, Artibano
- CANTONI, A. AND BUTLER, P.: Eigenvalues and eigenvectors of symmetric centrosymmetric matrices, 13: 275-288 (1976)
- CAO, WEI LU AND STEWART, WILLIAM J.: A note on inverses of Hessenberg-like matrices, 76: 233-240 (1986)
- CAO, ZHI HAO: On a deflation method for the symmetric generalized eigenvalue problem, 92: 187-196 (1987)
- CAO, ZHI HAO: Residual error bounds of generalized eigenvalue systems, 93: 113-120 (1987)
- CAO, ZHI HAO AND ZHANG, YIN: The contraction number of a multigrid method with mesh ratio two for solving model problems, 79: 23-32 (1986)
- CAPOVANI, MILVIO: See Bini, Dario
- CARLITZ, L.: See Brawley, J. V.
- CARLITZ, L. AND HODGES, JOHN H.: Enumeration of matrices of given rank with submatrices of given rank, 16: 285-291 (1977)
- CARLSON, DAVID: A new criterion for H -stability of complex matrices, 1: 59-64 (1968)
- CARLSON, DAVID: Controllability, inertia, and stability for tridiagonal matrices, 56: 207-220 (1984)
- CARLSON, DAVID: Generalizations of matrix monotonicity: Collection of articles dedicated to Olga Taussky Todd, 13: 125-131 (1976)
- CARLSON, DAVID: Inequalities for the degrees of elementary divisors of modules, 5: 293-298 (1972)
- CARLSON, DAVID: Minimax and interlacing theorems for matrices, 54: 153-172 (1983)
- CARLSON, DAVID: What are Schur complements, anyway?, 74: 257-275 (1986)
- CARLSON, DAVID AND HAYNSWORTH, EMILIE V.: Complementable and almost definite matrices, 52: 157-176 (1983)
- CARLSON, DAVID AND HILL, RICHARD: Generalized controllability and inertia theory, 15: 177-187 (1976)
- CARLSON, DAVID AND LOEWY, RAPHAEL: On equality of maps induced by alternate products, 47: 89-110 (1982)
- CARLSON, DAVID AND LOEWY, RAPHAEL: On ranges of Lyapunov transformations, 8: 237-248 (1974)
- CARLSON, DAVID, MARKHAM, THOMAS L., AND UHLIC, FRANK: Emilie Haynsworth, 1916-1985, 75: 269-276 (1986)
- CARLSON, DAVID AND PIERCE, STEPHEN: Common eigenvectors and quasicommutativity of sets of simultaneously triangularizable matrices, 71: 49-55 (1985)
- CARLSON, DAVID H. AND DATTA, BISWA NATH: The Lyapunov matrix equation $SA + A^*S = S^*B^*BS$, 28: 43-52 (1979)
- CARLSON, DAVID H. AND VARGA, RICHARD S.: Minimal G -function. I, II, 6: 97-117; *ibid.* 7 (1973), 233-242 (1973)
- CARLSON, DAVID H. AND VARGA, RICHARD S.: On collections of G -functions, 8: 65-76 (1974)
- CARLSON, R. E.: A note on intrinsic functions, 5: 393-396 (1972)

- CARON, R. J. AND GOULD, N. I. M.: Finding a positive semidefinite interval for a parametric matrix, 76: 19-29 (1986)
- CATER, F. S.: Products of central collineations, 19: 251-274 (1978)
- CAVARETTA, A. S., JR., DAHMEN, W. A., MICHELLI, C. A., AND SMITH, P. W.: A factorization theorem for banded matrices, 39: 229-245 (1981)
- CECHLAROVA, KATAVINA: See Butkovic, Peter
- CENSOR, YAIR: See Berman, Abraham
- CENSOR, YAIR AND ELFVING, TOMMY: New methods for linear inequalities, 42: 199-211 (1982)
- CHABRILLAC, YVES AND CROUZEIX, J.-P.: Definiteness and semidefiniteness of quadratic forms revisited, 63: 283-292 (1984)
- CHAKRAVARTI, INDRA-MOHAN: On a characterization of irreducibility of a non-negative matrix, 10: 103-109 (1975)
- CHALKLEY, ROGER: Information about group matrices, 38: 121-133 (1981)
- CHAN, G. H. AND LIM, M. H.: A conjecture involving generalized matrix functions, 36: 157-163 (1981)
- CHAN, G. H. AND LIM, M. H.: Linear transformations on symmetric matrices that preserve commutativity, 47: 11-22 (1982)
- CHAN, GIN HOR: (k)-characters and the triviality of symmetry classes, 25: 139-149 (1979)
- CHAN, GIN-HOR, LIM, MING HUAT, AND TAN, KOK-KEONG: Linear preservers on matrices, 93: 67-80 (1987)
- CHAN, N. N. AND MAK, T. K.: Estimation in multivariate errors-in-variables models, 70: 197-207 (1985)
- CHAN, TONY F.: Rank revealing QR factorizations, 88: 67-82 (1987)
- CHAN, TONY F. AND RESASCO, DIANA C.: On the condition of nearly singular matrices under rank-1 perturbations, 76: 223-232 (1986)
- CHANDRASEKARAN, R.: See Truemper, K.
- CHANG, CENG ZHE AND DAVIS, PHILIP J.: A circulant formulation of the Napoleon-Douglas-Neumann theorem, 54: 87-95 (1983)
- CHANG, SIN CHUNG: Generalizations of two inequalities involving Hermitian forms, 65: 179-187 (1985)
- CHANG, SIN CHUNG: On the product of convex combinations and the Kantorovich inequality, 93: 9-38 (1987)
- CHAO, CHONG YUN: On a type of circulants, 6: 241-248 (1973)
- CHAO, CHONG YUN: On some sets of permutation matrices, 45: 131-134 (1982)
- CHAO, CHONG-YUN: A remark on cyclic matrices, 3: 165-172 (1970)
- CHAO, CHONG YUN AND ZHANG, MOU CHENG: On generalized circulants over a Boolean algebra, 62: 195-206 (1984)
- CHARI, BHAGYA AND HOCHSTADT, HARRY: A direct and inverse problem for a Hill's matrix with double eigenvalues, 52: 177-197 (1983)
- CHARLIER, J.-P. AND VAN DOOREN, P.: On Kogbetliantz's SVD algorithm in the presence of clusters, 95: 135-160 (1987)
- CHARNES, A., GRANOT, DANIEL, AND GRANOT, FRIEDA: A primal algorithm for interval linear-programming problems, 17: 65-78 (1977)
- CHATELIN, FRANCOISE AND MIRANKER, WILLARD L.: Acceleration by aggregation of successive approximation methods, 43: 17-47 (1982)
- CHAZAN, D. AND MIRANKER, W.: Chaotic relaxation, 2: 199-222 (1969)
- CHEN, DAO QI: An invariant deflation for lower banded matrices, 49: 237-245 (1983)
- CHEN, GONG NING: Note on lower bounds for the rank of a matrix, 55: 125-132 (1983)
- CHEN, GONG NING: On some properties of singular matrices, 49: 137-151 (1983)
- CHEN, GONG NING: Some generalizations of diagonal dominance associated with G -functions, 55: 169-180 (1983)
- CHEN, JI CHENG: The nonnegative rank factorizations of nonnegative matrices, 62: 207-217 (1984)
- CHENG, SUI-SUN: Discrete quadratic Wirtinger's inequalities, 85: 57-73 (1987)
- CHENG, SUI-SUN, LI, HORNG JAAN, LU, TZON-TZER, AND WU, SHU HEI: Regular and singular orthants of tridiagonal matrices, 94: 181-191 (1987)
- CHENG, SUI SUN AND LU, TZON TZER: Convex regular domains of tridiagonal matrices, 79: 103-125 (1986)

- CHEHN, I.-L.: See Miranker, W. L.
- CHETTY, C. S. K.: See Rathore, R. K. S.
- CHEUNG, SHIU MING AND HOCHSTADT, HARRY: An inverse spectral problem, 12: 215-222 (1975)
- CHIKUSE, YASUKO: Multivariate Meixner classes of invariant distributions, 82: 177-200 (1986)
- CHILLAG, DAVID: Generalized circulants and class functions of finite groups, 93: 191-208 (1987)
- CHING, WAI SIN: Linear equations over commutative rings, 18: 257-266 (1977)
- CHOI, M. D., JAFARIAN, A. A., AND RADJAVI, H.: Linear maps preserving commutativity, 87: 227-241 (1987)
- CHOI, MAN DUEN: Completely positive linear maps on complex matrices, 10: 285-290 (1975)
- CHOI, MAN DUEN: Positive semidefinite bi-quadratic forms, 12: 95-100 (1975)
- CHOUDHURY, DIPAK, HORN, ROGER A., AND PIERCE, STEPHEN J.: Quasi-positive definite operators and matrices, 99: 161-176 (1988)
- CHRISTENSEN, JENS PETER REUS AND FISCHER, PAL: Positive definite doubly stochastic matrices and extreme points, 82: 123-132 (1986)
- CHRISTIAN, FLOYD L., JR.: A k -measure of irreducibility and doubly stochastic matrices, 24: 225-237 (1979)
- CHU, KING-WAH ERIC: Singular value and generalized singular value decompositions and the solution of linear matrix equations, 88: 83-98 (1987)
- CHU, KING-WAH ERIC: The solution of the matrix equations $AXB - CXD = E$ and $(YA - DZ, YC - BZ) = (E, F)$, 93: 93-105 (1987)
- CHU, MOODY: A continuous approximation to the generalized Schur decomposition, 78: 119-132 (1986)
- CHU, MOODY T.: A differential equation approach to the singular value decomposition of bidiagonal matrices, 80: 71-79 (1986)
- CHU, MOODY T.: A simple application of the homotopy method to symmetric eigenvalue problems, 59: 85-90 (1984)
- CHUNG, J. K., KANNAPPAN, PL., AND NG, C. T.: A generalization of the cosine-sine functional equation on groups, 66: 259-277 (1985)
- CIAMPI, RITA: Characterization of a class of matrices as sums of squares, 3: 45-50 (1970)
- CIARLET, P. G.: Some results in the theory of nonnegative matrices, 1: 139-152 (1968)
- CLAASEN, H. L.: The multiplications in $GF(q)(x)/(a(x))$ considered as linear transformations, 22: 105-123 (1978)
- CLAESSENS, GUIDO: On the location of the zeros of a generalized polynomial, 22: 79-88 (1978)
- CLARK, KENNETH D.: A structural form for higher-index semistate equations. I. Theory and applications to circuit and control theory, 98: 169-197 (1988)
- CLAUSEN, MICHAEL: See Buchi, Werner
- CLINE, R. E. AND FUNDERLIC, R. E.: The rank of a difference of matrices and associated generalized inverses, 24: 185-215 (1979)
- CLINE, R. E., PLEMMONS, R. J., AND WORM, G.: Generalized inverses of certain Toeplitz matrices, 8: 25-33 (1974)
- CLINE, RANDALL E.: Note on an extension of the Moore-Penrose inverse, 40: 19-23 (1981)
- CLINE, RANDALL E. AND GREVILLE, T. N. E.: A Drazin inverse for rectangular matrices, 29: 53-62 (1980)
- CLINE, RANDALL E. AND MCCONNELL, ROBERT M.: Extensions of the Levine-Nahikian method for constructing involutory matrices, 57: 247-270 (1984)
- COBHAM, ALAN: Stochastic automata with large state spaces and low rank, 75: 57-66 (1986)
- COHEN, A. M.: A note on pivot size in Gaussian elimination, 8: 361-368 (1974)
- COHEN, JOEL E.: Perturbation theory of completely mixed matrix games, 79: 153-162 (1986)
- COHEN, JOEL E., FRIEDLAND, SHMUEL, KATO, TOSIO, AND KELLY, FRANK P.: Eigenvalue inequalities for products of matrix exponentials, 45: 55-95 (1982)
- COHEN, JOEL E. AND SELLERS, PETER H.: Sets of nonnegative matrices with positive inhomogeneous products, 47: 185-192 (1982)
- COHEN, NIR: Polynomial systems and Kronecker invariants, 87: 257-265 (1987)

- COHN, HARVEY: Ternary forms as invariants of Markoff forms and other $SL_2(\mathbb{Z})$ -bundles, 21: 3-12 (1978)
- COLANERI, PATRIZIO: See Bolzern, Paolo
- COLLATZ, LOTHAR: Lothar Collatz—on the occasion of his 75th birthday, 69: vi, 1-8 (1985)
- COLLOMBIER, D.: See El Mossadeq, A.
- CONCEICAO SILVA, F.: Matrices with prescribed eigenvalues and principal submatrices, 92: 241-250 (1987)
- CONCEICAO SILVA, F.: On the number of invariant polynomials of the matrix $XAX^{-1} + B$, 79: 1-21 (1986)
- CONNER, LUTHER T., JR. AND STANFORD, DAVID P.: The structure of the controllable set for multimodal systems, 95: 171-180 (1987)
- CONRADIE, W. J.: See Troskie, C. G.
- CONSONNI, G. AND DAWID, A. P.: Decomposition and Bayesian analysis of invariant normal linear models, 70: 21-49 (1985)
- CONSTANTINE, GREGORY: Lower bounds on the spectra of symmetric matrices with non-negative entries, 65: 171-178 (1985)
- CONWAY, J. B. AND HALMOS, P. R.: Finite-dimensional points of continuity of Lat, 31: 93-102 (1980)
- CONWAY, JOHN B.: Finite-dimensional points of continuity of Gen and Com, 35: 121-127 (1981)
- COOK, P. A.: Estimates for the inverse of a matrix, 10: 41-53 (1975)
- COPPEL, W. A.: Linear systems: some algebraic aspects, 40: 257-273 (1981)
- CORDES, CRAIG M.: A note on Pall partitions over finite fields, 12: 81-85 (1975)
- CORDOVIL, RAUL: Polarity and point extensions in oriented matroids, 90: 15-31 (1987)
- CORDOVIL, RAUL AND SILVA, ILDA P.: Determining a matroid polytope by non-Radon partitions, 94: 55-60 (1987)
- COSTA E SILVA, MARIA C.: See Micali, Artibano
- COTTLE, R. W., HABETLER, G. J., AND LEMKE, C. E.: On classes of copositive matrices, 3: 295-310 (1970)
- COTTLE, RICHARD W.: Manifestations of the Schur complement, 8: 189-211 (1974)
- COTTLE, RICHARD W. AND DANTZIG, GEORGE B.: Complementary pivot theory of mathematical programming, 1: 103-126 (1968)
- COTTLE, RICHARD W. AND FERLAND, JACQUES A.: Matrix-theoretic criteria for the quasi-convexity and pseudo-convexity of quadratic functions, 5: 123-136 (1972)
- COTTLE, RICHARD W., VON RANDOW, RABE, AND STONE, RICHARD E.: On spherically convex sets and Q -matrices, 41: 73-80 (1981)
- COURTER, R. C.: Maximal commutative subalgebras of K_n at exponent three, 6: 1-11 (1973)
- COURTOIS, P.-J. AND SEMAL, P.: Block iterative algorithms for stochastic matrices, 76: 59-70 (1986)
- COURTOIS, P.-J. AND SEMAL, P.: On polyhedra of Perron-Frobenius eigenvectors, 65: 157-170 (1985)
- COXSON, PAMELA G.: See Lou, Sheldon X.-C.
- COXSON, PAMELA G., LARSON, LOREN C., AND SCHNEIDER, HANS: Monomial patterns in the sequence $A^k b$, 94: 89-101 (1987)
- COXSON, PAMELA G. AND SHAPIRO, HELENE: Positive input reachability and controllability of positive systems, 94: 35-53 (1987)
- CRASTREE, DOUGLAS E.: See Bailey, Duane W.
- CRAGNOLINI, P.: See Benedetti, R.
- CRAVEN, B. D. AND MOND, B.: Linear programming with matrix variables, 38: 73-80 (1981)
- CRAWFORD, C. R. AND MOON, YIU SANG: Finding a positive definite linear combination of two Hermitian matrices, 51: 37-48 (1983)
- CRONE, LAWRENCE: Second order adjoint matrix equations, 39: 61-71 (1981)
- CROSS, G. W.: Three types of matrix stability, 20: 253-263 (1978)
- CROUZEL, J.-P.: See Chabrilac, Yves
- CRUSE, ALLAN B.: A proof of Fulkerson's characterization of permutation matrices, 12: 21-28 (1975)
- CRUSE, ALLAN B.: On removing a vertex from the assignment polytope, 26: 45-57 (1979)
- CRUSE, ALLAN B.: Some combinatorial properties of centrosymmetric matrices, 16: 65-77 (1977)
- CRUYER, COLIN W.: Some properties of totally positive matrices, 15: 1-25 (1976)

- CRUYER, COLIN W.: The LU -factorization of totally positive matrices, 7: 83-92 (1973)
- CSIMA, J.: See Brualdi, R. A.
- CULLEN, C. G.: See Long, J. P.
- CULLUM, JANE AND WILLOUGHBY, RALPH A.: The Lanczos phenomenon—an interpretation based upon conjugate gradient optimization, 29: 63-90 (1980)
- CUNNINGHAM, W. H.: An unbounded matroid intersection polyhedron, 16: 209-215 (1977)
- CUNNINGHAM, WILLIAM H.: Separating cocircuits in binary matroids, 43: 69-86 (1982)
- CURTIS, W. D., LOGAN, J. DAVID, AND PARKER, W. A.: Dimensional analysis and the pi theorem, 47: 117-126 (1982)
- CUSHMAN, R.: See Burgoyne, N.
- CVETKOVIC, DRAGOSH: See Doob, Michael
- CYBENKO, GEORGE: An explicit formula for Lanczos polynomials, 88: 99-115 (1987)
- DAHLQUIST, GERMUND: On matrix majorants and minorants, with applications to differential equations, 52: 199-216 (1983)
- DAHMAN, W. A.: See Cavaretta, A. S., Jr.
- DAHMAN, WOLFGANG AND MICCHELLI, CHARLES A.: Translates of multivariate splines, 52: 217-234 (1983)
- DAMHUS, TURE: Complex conjugation of group representations by inner automorphisms, 32: 125-135 (1980)
- DANCIS, JEROME: A quantitative formulation of Sylvester's law of inertia. III, 80: 141-158 (1986)
- DANCIS, JEROME: The possible inertias for a Hermitian matrix and its principal submatrices, 85: 121-151 (1987)
- DANCIS, JEROME AND DAVIS, CHANDLER: An interlacing theorem for eigenvalues of selfadjoint operators, 88: 117-122 (1987)
- DANIEL, JAMES W. AND PALMER, THEODORE W.: On $\sigma(T)$, $\|T\|$, and $\|T^{-1}\|$, 2: 381-386 (1969)
- DANTZIG, GEORGE B.: See Cottle, Richard W.
- DA PROVIDENCIA, J.: See Bebianio, Natalia
- DA PROVIDENCIA, J. AND BEBIANO, N.: Matrices satisfying a conjecture of G. N. de Oliveira on determinants, 78: 187-198 (1986)
- DA PURIFICACAO COELHO, MA.: See Dias da Silva, J. A.
- DAS, K. C. AND EMBRY-WARDROP, MARY: Orthogonality and the numerical range. II, 30: 63-67 (1980)
- DASS, BAL KISHAN: See Sharma, Bhu Dev
- DATTA, B. N.: An elementary proof of the stability criterion of Lienard and Chipart, 22: 89-96 (1978)
- DATTA, B. N.: Generalized Hankel matrices of Markov parameters and their applications to control problems, 62: 139-154 (1984)
- DATTA, B. N.: On the Routh-Hurwitz-Fujiwara and the Schur-Cohn-Fujiwara theorems for the root-separation problem, 22: 235-245 (1978)
- DATTA, B. N. AND DATTA, KARABI: An algorithm for computing powers of a Hessenberg matrix and its applications, 14: 273-284 (1976)
- DATTA, BISWA NATH: Stability and D-stability, 21: 135-141 (1978)
- DATTA, BISWA NATH: See Carlson, David H.
- DATTA, BISWA NATH AND DATTA, KARABI: The matrix equation $XA = A^T X$ and an associated algorithm for solving the inertia and stability problems, 97: 103-119 (1987)
- DATTA, KARABI: See Datta, Biswa Nath
- DAUGHTRY, JOHN: Isolated solutions of quadratic matrix equations, 21: 89-94 (1978)
- DAVIES, ROY O. AND MODI, J. J.: A direct method for completing eigenproblem solutions on a parallel computer: Special volume on parallel computing, 77: 61-74 (1986)
- DAVILA, NORBIL: See Barker, G. P.
- DAVIS, CHANDLER: An extremal problem for extensions of a sesquilinear form: Collection of articles dedicated to Olga Taussky Todd, 13: 91-102 (1976)
- DAVIS, CHANDLER: Explicit functional calculus, 6: 193-199 (1973)
- DAVIS, CHANDLER: Extending the Kantorovich inequality to normal matrices, 31: 173-177 (1980)
- DAVIS, CHANDLER: Geometric approach to a dilation theorem, 18: 33-43 (1977)
- DAVIS, CHANDLER: Representing a commuting pair by tensor products, 3: 355-357 (1970)

- DAVIS, CHANDLER: The change of the Jordan structure of a matrix under small perturbations: Translated from the Russian by Chandler Davis, 54: 139-152 (1983)
- DAVIS, CHANDLER: See Bhatia, Rajendra
- DAVIS, CHANDLER: See Dancis, Jerome
- DAVIS, DANIEL L. AND ROBINSON, DONALD W.: Generalized inverses of morphisms, 5: 319-328 (1972)
- DAVIS, PHILIP J.: Cyclic transformations of n -gons and related quadratic forms, 25: 57-75 (1979)
- DAVIS, PHILIP J.: See Chang, Geng Zhe
- DAVIS, PHILIP J.: See Najfeld, Igor
- DAWID, A. P.: See Consonni, G.
- DE BOOR, C. AND GOLUB, G. H.: The numerically stable reconstruction of a Jacobi matrix from spectral data, 21: 245-260 (1978)
- DE BOOR, C., JIA, RONG QING, AND PINKUS, A.: Structure of invertible (bi)infinite totally positive matrices, 47: 41-55 (1982)
- DE BOOR, CARL AND PINKUS, ALLAN: The approximation of a totally positive band matrix by a strictly banded totally positive one, 42: 81-98 (1982)
- DE BOOR, CARL AND SAFF, EDWARD B.: Finite sequences of orthogonal polynomials connected by a Jacobi matrix, 75: 43-55 (1986)
- DE BRUIJN, N. G.: Remarks on Hermitian matrices, 32: 201-208 (1980)
- DE BRUIN, MARCEL G.: Some explicit formulae in simultaneous Pade approximation, 63: 271-281 (1984)
- DE CAEN, D. AND GREGORY, D. A.: Primes in the semigroup of Boolean matrices, 37: 119-134 (1981)
- DE GROEN, PIETER P. N.: The construction of an accurate lower bound for the real parts of the eigenvalues of an M -matrix, 43: 161-166 (1982)
- DE GROOTE, HANS F. AND HEINTZ, JOOS: Commutative algebras of minimal rank, 55: 37-68 (1983)
- DE HOO, FRANK: A new algorithm for solving Toeplitz systems of equations, 88: 123-138 (1987)
- DE OLIVEIRA, G. N.: Matrices with prescribed characteristic polynomial and principal blocks. II, 47: 35-40 (1982)
- DE OLIVEIRA, G. N.: Note on the characteristic roots of tournament matrices, 8: 271-272 (1974)
- DE OLIVEIRA, G. N.: On the characteristic vectors of a matrix, 5: 189-196 (1972)
- DE OLIVEIRA, G. N. AND DIAS DA SILVA, J. A.: Conditions for equality of decomposable symmetric tensors. II, 28: 161-176 (1979)
- DE OLIVEIRA, G. N. AND DIAS DA SILVA, J. A.: Equality of decomposable symmetrized tensors and $*$ -matrix groups, 49: 191-219 (1983)
- DE PIERRO, ALVARO R. AND IUSEM, ALFREDO N.: A simultaneous projections method for linear inequalities, 64: 243-253 (1985)
- DE PILLIS, J.: See Niethammer, W.
- DE PILLIS, JOHN: How to embrace your spectrum for faster iterative results, 34: 125-143 (1980)
- DE PILLIS, JOHN: Inequalities for partitioned positive semidefinite matrices, 4: 79-94 (1971)
- DE PILLIS, JOHN AND BRENNER, JOEL: Generalized elementary symmetric functions and quaternion matrices, 4: 55-69 (1971)
- DE SOUZA, EURICE AND BHATTACHARYYA, S. P.: Controllability and the linear equation $Ax = b$, 36: 97-101 (1981)
- DE SOUZA, EURICE AND BHATTACHARYYA, S. P.: Controllability, observability and the solution of $AX - XB = C$, 39: 167-188 (1981)
- DE VRIES, HANS LUDWIG: See Kress, Rainer
- DEDDENS, J. A. AND FILLMORE, P. A.: Reflexive linear transformations, 10: 89-93 (1975)
- DEEDS, JOSEPH B.: Uniqueness of symmetric norms for matrix rings, 5: 383-391 (1972)
- DEHESA, JESUS S.: The eigenvalue density of rational Jacobi matrices. II, 33: 41-55 (1980)
- DEIFT, P. AND NANDA, T.: On the determination of a tridiagonal matrix from its spectrum and a submatrix, 60: 43-55 (1984)
- DEKKER, T. J. AND TRAUB, J. F.: The shifted QR algorithm for Hermitian matrices, 4: 137-154 (1971)
- DELLA-DORA, J.: Numerical linear algorithms and group theory, 10: 267-283 (1975)
- DELLA DORA, JEAN AND ROBERT, FRANCOIS: Noel Gastinel and computational mathematics, 78: 237-247 (1986)

- DELOSME, JEAN-MARC: See Genin, Yves
- DELOSME, JEAN-MARC AND IPSEN, ILSE C. F.: Parallel solution of symmetric positive definite systems with hyperbolic rotations: Special volume on parallel computing, 77: 75-111 (1986)
- DELSARTE, P., GENIN, Y., AND KAMP, Y.: On the Toeplitz embedding of an arbitrary matrix, 51: 97-119 (1983)
- DELSARTE, PH., GENIN, Y., AND KAMP, Y.: A method of matrix inverse triangular decomposition based on contiguous principal submatrices, 31: 199-212 (1980)
- DEMKO, STEPHEN: Condition numbers of rectangular systems and bounds for generalized inverses, 78: 199-206 (1986)
- DEMKO, STEPHEN: Surjectivity and invertibility properties of totally positive matrices, 45: 13-20 (1982)
- DEMME, JAMES WELDON: Computing stable eigendecompositions of matrices, 79: 163-193 (1986)
- DEMME, JAMES WELDON AND KAGSTROM, BO: Computing stable eigendecompositions of matrix pencils, 88: 139-186 (1987)
- DENMAN, EUGENE D.: Roots of real matrices, 36: 133-139 (1981)
- DENNIS, J. E., JR. AND TURNER, KATHRYN: Generalized conjugate directions, 88: 187-209 (1987)
- DEPRIMA, C. R. AND JOHNSON, C. R.: The range of $A^{-1}A^*$ in $GL(n, C)$, 9: 209-222 (1974)
- DEUFLHARD, P. AND SAUTTER, W.: On rank-deficient pseudoinverses, 29: 91-111 (1980)
- DEUTSCH, E.: See Bauer, F. L.
- DEUTSCH, E., HADELER, K. P., AND LAFFEY, T. J.: Helmut Wielandt, 71: 1-8 (1985)
- DEUTSCH, EMERIC: Matricial norms and the zeros of lacunary polynomials, 6: 143-148 (1973)
- DEUTSCH, EMERIC: Matricial norms and the zeros of polynomials, 3: 483-489 (1970)
- DEUTSCH, EMERIC: Nonnegative spectraloid matrices, 39: 149-154 (1981)
- DEUTSCH, EMERIC: On certain generalized matrix norms, 29: 113-129 (1980)
- DEUTSCH, EMERIC: On the spread of matrices and polynomials, 22: 49-55 (1978)
- DEUTSCH, EMERIC: Relatively bounded matrix sets, minimal matrix norms and numerical ranges, 8: 447-457 (1974)
- DEUTSCH, EMERIC: Semi-inverses, reflexive semi-inverses, and pseudo-inverses of an arbitrary linear transformation, 4: 313-322 (1971)
- DEUTSCH, EMERIC, GIBSON, P. M., AND SCHNEIDER, HANS: The Fuglede-Putnam theorem and normal products of matrices: Collection of articles dedicated to Olga Taussky Todd, 13: 53-58 (1976)
- DEUTSCH, EMERIC AND MLYNARSKI, MAX: Matricial logarithmic derivatives, 19: 17-31 (1978)
- DEUTSCH, EMERIC AND NEUMANN, MICHAEL: On the first and second order derivatives of the Perron vector, 71: 57-76 (1985)
- DEUTSCH, EMERIC AND SCHNEIDER, HANS: Bounded groups and norm-Hermitian matrices, 9: 9-27 (1974)
- DEUTSCH, EMERIC AND WIELANDT, HELMUT: Nested bounds for the Perron root of a nonnegative matrix, 52: 235-251 (1983)
- DEWILDE, PATRICK: See Van Dooren, Paul
- DEZA, M. AND ROSENBERG, I. G.: Generalized intersection patterns and two-symbol balanced arrays, 30: 9-40 (1980)
- DIAS DA SILVA, J. A.: Conditions for equality of decomposable symmetric tensors, 24: 85-92 (1979)
- DIAS DA SILVA, J. A.: Irreducible representations of the full linear group, 40: 161-182 (1981)
- DIAS DA SILVA, J. A.: On the multiplicative inverse eigenvalue problem, 78: 133-145 (1986)
- DIAS DA SILVA, J. A.: See de Oliveira, G. N.
- DIAS DA SILVA, J. A. AND DA PURIFICACAO COELHO, MA.: Linear groups associated with elements of a group algebra, 94: 165-179 (1987)
- DIAS DA SILVA, J. A. AND FONSECA, AMELIA: Vector colorability, 94: 67-88 (1987)
- DICKINSON, BRADLEY W.: An inverse problem for Toeplitz matrices, 59: 79-83 (1984)
- DIXON, JOHN D.: Nilpotence and local nilpotence of linear groups: Collection of articles dedicated to Olga Taussky Todd, 13: 59-67 (1976)

- DIXON, JOHN D.: On duality theorems, 39: 223-227 (1981)
- DJAFERIS, T. E. AND MITTER, S. K.: Algebraic methods for the study of some linear matrix equations, 44: 125-142 (1982)
- DJAFERIS, T. E. AND MITTER, S. K.: Some generic invariant factor assignment results using dynamic output feedback, 50: 103-131 (1983)
- DJOKOVIC, D. ZH.: On the similarity between a linear transformation and its adjoint, 6: 155-158 (1973)
- DJOKOVIC, D. ZH. AND MALZAN, J.: Orbits of nilpotent matrices, 32: 157-158 (1980)
- DJOKOVIC, DRAGOMIR Z.: Relations between the half turns of the hyperbolic plane, 47: 57-88 (1982)
- DJOKOVIC, DRAGOMIR ZH.: Characterization of Hermitian and skew-Hermitian maps between matrix algebras, 12: 165-170 (1975)
- DJOKOVIC, DRAGOMIR ZH.: Classification of pairs consisting of a linear and a semilinear map, 20: 147-165 (1978)
- DJOKOVIC, DRAGOMIR ZH.: Positive semi-definite matrices as sums of squares, 14: 37-40 (1976)
- DJOKOVIC, DRAGOMIR ZH.: Relations between reflections in the unitary group and Hermitian hyperquadrics in the complex projective space, 35: 129-153 (1981)
- DJOKOVIC, DRAGOMIR ZH. AND MALZAN, JERRY: Products of reflections in the general linear group over a division ring, 28: 53-62 (1979)
- DLAB, VLASTIMIL AND RINGEL, CLAUS MICHAEL: A remark on normal forms of matrices, 30: 109-114 (1980)
- DLAB, VLASTIMIL AND RINGEL, CLAUS MICHAEL: Normal forms of real matrices with respect to complex similarity, 17: 107-124 (1977)
- DORBIN, DAVID: See Brockett, Roger W.
- DON, F. J. HENK: On the symmetric solutions of a linear matrix equation, 93: 1-7 (1987)
- DON, F. J. HENK: The use of generalized inverses in restricted maximum likelihood, 70: 225-240 (1985)
- DON, F. J. HENK AND VAN DER PLAS, ADRIAAN P.: A note on the characteristic polynomial of the commutation matrix, 37: 135-142 (1981)
- DONALD, JOHN, ELWIN, JOHN, HAGER, RICHARD, AND SALAMON, PETER: A graph theoretic upper bound on the permanent of a nonnegative integer matrix. I, 61: 187-198 (1984)
- DONALD, JOHN, ELWIN, JOHN, HAGER, RICHARD, AND SALAMON, PETER: A graph theoretic upper bound on the permanent of a nonnegative integer matrix. II. The extremal case, 61: 199-218 (1984)
- DONGARRA, J. J., GABRIEL, J. R., KOELLING, D. D., AND WILKINSON, J. H.: The eigenvalue problem for Hermitian matrices with time reversal symmetry, 60: 27-42 (1984)
- DONGARRA, JACK J., KAUFMAN, LINDA, AND HAMMARLING, SVEN: Squeezing the most out of eigenvalue solvers on high-performance computers: Special volume on parallel computing, 77: 113-136 (1986)
- DONNELLY, J. D. P.: Periodic chaotic relaxation, 4: 117-128 (1971)
- DOOB, MICHAEL: A spectral characterization of the line graph of a BIBD with $\lambda = 1$, 12: 11-20 (1975)
- DOOB, MICHAEL: A surprising property of the least eigenvalue of a graph, 46: 1-7 (1982)
- DOOB, MICHAEL: On characterizing certain graphs with four eigenvalues by their spectra, 3: 461-482 (1970)
- DOOB, MICHAEL AND CVETKOVIC, DRAGOSH: On spectral characterizations and embeddings of graphs, 27: 17-26 (1979)
- DOS SANTOS LEAL, LILIA APARECIDA: See Ruiz Claeysen, Julio Cesar
- DOW, STEPHEN J. AND GIBSON, PETER M.: Permanents of d -dimensional matrices, 90: 133-145 (1987)
- DOWNES, T.: A degree property of rational matrices, 72: 73-84 (1985)
- DOWNES, T.: On the inversion of a matrix of rational functions, 4: 1-10 (1971)
- DRAKE, DAVID A. AND SANE, SHARAD S.: Auxiliary sets of matrices with new step parameter sequences, 46: 131-153 (1982)
- DRUCKER, DANIEL: See Greenfield, Gary R.
- DRURY, S. W.: Extreme points for positive forms on \mathbb{P}^n , 97: 219-228 (1987)
- DRYGAS, HILMAR: A note on the inverse-partitioned-matrix method in linear regression analysis, 67: 275-277 (1985)

- DUBEAU, FRANCOIS: On band circulant matrices in the periodic spline interpolation theory, 72: 177-182 (1985)
- DUFF, I. S.: See Björck, A.
- DUFF, IAIN: See Golub, Gene H.
- DUKE, JOHN W.: A note on EP linear transformations, 3: 379-382 (1970)
- DUNKL, CHARLES F. AND RAMIREZ, DONALD E.: A linear programming problem in harmonic analysis, 14: 107-116 (1976)
- DYM, HARRY AND COHBERG, ISRAEL: Extensions of band matrices with band inverses, 36: 1-24 (1981)
- EAVES, B. CURTIS: Piecewise linear retractions by reflexion, 7: 93-98 (1973)
- EAVES, B. CURTIS: Subdivisions from primal and dual cones and polytopes, 62: 277-285 (1984)
- EEBRLIN, P. J.: Remarks on the van der Waerden conjecture. II, 2: 311-320 (1969)
- ECKHARDT, ULRICH: Theorems on the dimension of convex sets, 12: 63-76 (1975)
- EGGERMONT, P. P. B., HERMAN, G. T., AND LENT, A.: Iterative algorithms for large partitioned linear systems, with applications to image reconstruction, 40: 37-67 (1981)
- EIFLER, L. Q.: See Barker, G. P.
- EISENFELD, J.: Block diagonalization of partitioned matrix operators, 6: 183-191 (1973)
- EISENFELD, JEROME: Block diagonalization and eigenvalues, 15: 205-215 (1976)
- EISENSTAT, STANLEY C., LEWIS, JOHN W., AND SCHULTZ, MARTIN H.: Optimal block diagonal scaling of block 2-cyclic matrices, 44: 181-186 (1982)
- EL MOSSADEQ, A., KOBILINSKY, A., AND COLLOMBIER, D.: Construction d'orthogonaux dans les groupes abéliens finis et confusions d'effets dans les plans factoriels: Construction of orthogonal in finite abelian groups and confounding effects in factorial designs, 70: 303-320 (1985)
- ELDEN, LARS AND SCHREIBER, ROBERT: A systolic array for the regularization of ill-conditioned least-squares problems with triangular Toeplitz matrix: Special volume on parallel computing, 77: 137-147 (1986)
- ELEZOVIC, NEVEN: On the minimal polynomial of a resolvent, 86: 1-9 (1987)
- ELFVING, TOMMY: On some methods for entropy maximization and matrix scaling, 34: 321-339 (1980)
- ELFVING, TOMMY: See Censor, Yair
- ELIA, MICHELE: A note on the computation of the bit error rate for binary block codes, 98: 199-210 (1988)
- ELLER, JOZSEF: On functions of companion matrices, 96: 191-210 (1987)
- ELLERS, ERICH W.: Products of two involutory matrices over skewfields, 26: 59-63 (1979)
- ELLERS, ERICH W. AND ISHIBASHI, HIROYUKI: Factorization of transformations over a local ring, 85: 17-27 (1987)
- ELLERS, ERICH W. AND NOLTE, WOLFGANG: Radical relations in orthogonal groups, 38: 135-139 (1981)
- ELLIS, R. L.: See Ben-Artzi, A.
- ELLIS, ROBERT L., COHBERG, ISRAEL, AND LAY, DAVID: Factorization of block matrices, 69: 71-93 (1985)
- ELSNER, L.: A note on characterizations of irreducibility of nonnegative matrices, 14: 187-188 (1976)
- ELSNER, L.: An optimal bound for the spectral variation of two matrices, 71: 77-80 (1985)
- ELSNER, L.: Block scaling with optimal Euclidean condition, 58: 69-73 (1984)
- ELSNER, L.: On convexity properties of the spectral radius of nonnegative matrices, 61: 31-35 (1984)
- ELSNER, L.: On matrices leaving invariant a nontrivial convex set, 42: 103-107 (1982)
- ELSNER, L.: On some algebraic problems in connection with general eigenvalue algorithms, 26: 123-138 (1979)
- ELSNER, L.: On the variation of the spectra of matrices, 47: 127-138 (1982)
- ELSNER, L. AND HADELER, K. P.: Lothar Collatz—on the occasion of his 75th birthday, 68: vi, 1-8 (1985)
- ELSNER, L. AND PAARDEKOOPER, M. H. C.: On measures of nonnormality of matrices, 92: 107-123 (1987)
- ELSNER, LUDWIG: Inverse iteration for calculating the spectral radius of a non-negative irreducible matrix, 15: 235-242 (1976)
- ELSNER, LUDWIG: Quasimonotonie und Ungleichungen in halbgeordneten Räumen, 8: 249-261 (1974)

- ELSNER, LUDWIG: See Johnson, Charles R.
- ELSNER, LUDWIG AND SUN, JI GUANG: Perturbation theorems for the generalized eigenvalue problem, 48: 341-357 (1982)
- ELWIN, JOHN: See Donald, John
- EMBRY-WARDROP, MARY: See Das, K. C.
- EMRE, EROL: Generalized model matching and (F, G) -invariant submodules for linear systems over rings, 50: 133-166 (1983)
- ENGEL, GERNOT M.: Regular equimodular sets of matrices for generalized matrix functions, 7: 243-274 (1973)
- ENGEL, GERNOT M. AND SCHNEIDER, HANS: Cyclic and diagonal products on a matrix, 7: 301-335 (1973)
- ENGEL, GERNOT M. AND SCHNEIDER, HANS: Matrices diagonally similar to a symmetric matrix, 29: 131-138 (1980)
- ERDELSKY, P. J.: A general theorem on dominant-diagonal matrices, 1: 203-209 (1968)
- ERICSSON, THOMAS AND RUHE, AXEL: Lanczos algorithms and field of value rotations for symmetric matrix pencils, 88: 733-746 (1987)
- ERMERS, RUUD AND POLMAN, BEN: On the eigenvalues of the structure matrix of matrices of zeros and ones, 95: 17-41 (1987)
- ESTES, DENNIS: See Butts, Hubert S.
- ESTES, DENNIS R.: Determinants of Galois automorphisms of maximal commutative rings of 2×2 matrices, 27: 225-243 (1979)
- ESTES, DENNIS R. AND TAUSKY, OLGA: Remarks concerning sums of three squares and quaternion commutator identities, 35: 279-285 (1981)
- EVARD, JEAN-CLAUDE: Conditions for a vector subspace $E(t)$ and for a projector $P(t)$ not to depend on t , 91: 121-131 (1987)
- EVARD, JEAN-CLAUDE: On matrix functions which commute with their derivative, 68: 145-178 (1985)
- FABRYKOWSKI, J., SHARMA, A., AND ZASENHAUS, H.: Some Birkhoff interpolation problems on the roots of unity, 65: 1-23 (1985)
- FAN, KY: An identity for symmetric bilinear forms, 65: 273-279 (1985)
- FAN, KY: An inequality for subadditive functions on a distributive lattice, with application to determinantal inequalities, 1: 33-38 (1968)
- FAN, KY: Generalized Cayley transforms and strictly dissipative matrices, 5: 155-172 (1972)
- FAN, KY: Normalizable operators, 52: 253-263 (1983)
- FAN, KY: On strictly dissipative matrices, 9: 223-241 (1974)
- FAN, KY: Two applications of a consistency theorem for systems of linear inequalities, 11: 171-180 (1975)
- FAREBROTHER, R. W.: Linear unbiased approximators of the disturbances in the standard linear model, 67: 259-274 (1985)
- FAREBROTHER, R. W.: Necessary and sufficient conditions for a quadratic form to be positive whenever a set of homogeneous linear constraints is satisfied, 16: 39-42 (1977)
- FAREBROTHER, R. W.: Three theorems with applications to Euclidean distance matrices, 95: 11-16 (1987)
- FARIA, ISABEL: Permanent roots and the star degree of a graph, 64: 255-265 (1985)
- FARJOT, PAULETTE: Rang des matrices hermitiennes semi-definies positives indefiniment divisibles, 15: 189-196 (1976)
- FARMER, K. BOLLING: Hermitian geometries in projective space, 35: 37-50 (1981)
- FARMER, K. BOLLING AND HALE, MARK P., JR.: Dual affine geometries and alternative bilinear forms, 30: 183-199 (1980)
- FARNSTEINER, ROLF: Quaternionic Lie algebras, 61: 225-231 (1984)
- FAUDREE, R. J., ROUSSEAU, C. C., AND SHEEHAN, J.: Strongly regular graphs and finite Ramsey theory, 46: 221-241 (1982)
- FEIG, E.: See Auslander, L.
- FEIG, EPHRAIM AND WINOGRAD, SHMUEL: On the direct sum conjecture, 63: 193-219 (1984)
- FEINSILVER, PHILIP: Circulants, inversion of circulants, and some related matrix algebras, 56: 29-43 (1984)
- FEINSILVER, PHILIP J.: See Barrett, Wayne W.
- FEINTUCH, AVRAHAM: One-dimensional perturbations of cyclic operators, 18: 171-174 (1977)
- FELZENBAUM, A. AND TAMIR, A.: Cyclic permutations and nearly symmetric integer vectors, 27: 159-166 (1979)

- FELZENBAUM, ALEXANDER: See Berger, Marc A.
- FENNER, T. I. AND LOIZOU, G.: Matrix bounds on the spectral condition number, 8: 157-178 (1974)
- FERLAND, JACQUES A.: Matrix criteria for pseudoconvex functions in the class C^2 , 21: 47-57 (1978)
- FERLAND, JACQUES A.: Matrix-theoretic criteria for the quasiconvexity of twice continuously differentiable functions, 38: 51-63 (1981)
- FERLAND, JACQUES A.: Positive subdefinite matrices, 31: 233-244 (1980)
- FERLAND, JACQUES A.: See Cottle, Richard W.
- FEROE, JOHN A.: A spectral radius theorem for matrix seminorms, 22: 97-103 (1978)
- FERREIRA, SILVIA M. M.: See Micali, Artibano
- FIALA, TIBOR: Normal equivalent to an arbitrary diagonalizable matrix, 51: 153-162 (1983)
- FIEDLER, M., JOHNSON, CHARLES R., AND MARKHAM, T. L.: Notes on inverse M -matrices, 91: 75-81 (1987)
- FIEDLER, MIROSLAV: S -matrices, 57: 157-167 (1984)
- FIEDLER, MIROSLAV: A characterization of tri-diagonal matrices, 2: 191-197 (1969)
- FIEDLER, MIROSLAV: A note on the Hadamard product of matrices, 49: 233-235 (1983)
- FIEDLER, MIROSLAV: Bounds for eigenvalues of doubly stochastic matrices, 5: 299-310 (1972)
- FIEDLER, MIROSLAV: Eigenvalues of nonnegative symmetric matrices, 9: 119-142 (1974)
- FIEDLER, MIROSLAV: Geometry of the numerical range of matrices, 37: 81-96 (1981)
- FIEDLER, MIROSLAV: Hankel and Loewner matrices, 58: 75-95 (1984)
- FIEDLER, MIROSLAV: Polynomials and Hankel matrices, 66: 235-248 (1985)
- FIEDLER, MIROSLAV: Quasidirect decompositions of Hankel and Toeplitz matrices, 61: 155-174 (1984)
- FIEDLER, MIROSLAV: Remarks on the Schur complement, 39: 189-195 (1981)
- FIEDLER, MIROSLAV: See Burns, Fennell
- FIEDLER, MIROSLAV: See Haynsworth, Emilie
- FIEDLER, MIROSLAV AND GRONE, ROBERT: Characterizations of sign patterns of inverse-positive matrices, 40: 237-245 (1981)
- FIEDLER, MIROSLAV, JOHNSON, CHARLES R., MARKHAM, THOMAS L., AND NEUMANN, MICHAEL: A trace inequality for M -matrices and the symmetrizability of a real matrix by a positive diagonal matrix, 71: 81-94 (1985)
- FIEDLER, MIROSLAV, MARKHAM, THOMAS L., AND NEUMANN, MICHAEL: Classes of products of M -matrices and inverse M -matrices, 52: 265-287 (1983)
- FIEDLER, MIROSLAV AND MARKHAM, THOMAS L.: Completing a matrix when certain entries of its inverse are specified, 74: 225-237 (1986)
- FIEDLER, MIROSLAV AND MARKHAM, THOMAS L.: Rank-preserving diagonal completions of a matrix, 85: 49-56 (1987)
- FIEDLER, MIROSLAV AND MERRIS, RUSSELL: Irreducibility of associated matrices, 37: 1-10 (1981)
- FIEDLER, MIROSLAV AND PTAK, VLASTIMIL: Bezoutians and intertwining matrices, 86: 43-51 (1987)
- FIEDLER, MIROSLAV AND PTAK, VLASTIMIL: Intertwining and testing matrices corresponding to a polynomial, 86: 53-74 (1987)
- FILIPPENKO, IVAN: See Marcus, Marvin
- FILLMORE, P. A.: See Deddens, J. A.
- FILLMORE, P. A., HERRERO, DOMINGO A., AND LONGSTAFF, W. E.: The hyperinvariant subspace lattice of a linear transformation, 17: 125-132 (1977)
- FISCHER, P.: Substochastic matrices and von Neumann majorization, 93: 247-254 (1987)
- FISCHER, P. AND SWART, E. R.: Three-dimensional line stochastic matrices and extreme points, 69: 179-203 (1985)
- FISCHER, PAL: See Christensen, Jens Peter Reus
- FITZ-GERALD, D. G.: Computing the maximum generalized inverse of a Boolean matrix, 16: 203-207 (1977)
- FIXMAN, URI AND OKOH, FRANK: Extensions of pairs of linear transformations between infinite-dimensional vector spaces, 19: 275-291 (1978)
- FLANDERS, HARLEY: A new proof of R. Foster's averaging formula in networks, 8: 35-37 (1974)
- FLANDERS, HARLEY AND WIMMER, HARALD K.:

- Positive operators and a problem in control theory, 8: 39-42 (1974)
- FLETCHER, R.: Factorizing symmetric indefinite matrices, 14: 257-272 (1976)
- FLETCHER, R. AND GRIFFITHS, D. F.: The generalized eigenvalue problem for certain unsymmetric band matrices, 29: 139-149 (1980)
- FLORES DE CHELA, DELIA: Generalized inverses on normed vector spaces, 26: 243-263 (1979)
- FLORES DE CHELA, DELIA: Approximations in the l_∞ norm and the generalized inverse, 42: 3-21 (1982)
- FLORES DE CHELA, DELIA: Generalized inverses under the l_1 -norm, 94: 237-261 (1987)
- FONG, C. K.: Norm estimates related to self-commutators, 74: 151-156 (1986)
- FONSECA, AMELIA: See Dias da Silva, J. A.
- FORAN, JAMES: See Barker, George Philip
- FOREGGER, THOMAS H.: Minimum permanents of multiplexes, 87: 197-211 (1987)
- FOREGGER, THOMAS H.: On the minimum value of the permanent of a nearly decomposable doubly stochastic matrix, 32: 75-85 (1980)
- FOSTER, LESLIE V.: Rank and null space calculations using matrix decomposition without column interchanges, 74: 47-71 (1986)
- FOX, DAVID W.: The convexity of the range of three Hermitian forms and of the numerical range of sesquilinear forms, 22: 191-194 (1978)
- FOX, L. AND HAYES, LINDA: Polynomial factorization and the Q-D algorithm, 1: 445-463 (1968)
- FREDE, LINDA J.: See Thompson, Robert C.
- FREEDMAN, H. I. AND LAWSON, J. D.: Systems with constant eigenvectors with applications to exact and numerical solutions of ordinary differential equations, 8: 369-374 (1974)
- FREEMAN, J. W.: See Bruen, A. A.
- FRESE, RALPH: Inequalities for generalized matrix functions based on arbitrary characters, 7: 337-345 (1973)
- FREUND, R.: A note on two block-SOR methods for sparse least squares problems, 88: 211-221 (1987)
- FREY, A. E., HALL, C. A., AND PORSCHING, T. A.: Numerical integration and the constant strain condition, 29: 151-159 (1980)
- FRIEDLAND, S. AND MELKMAN, A. A.: On the eigenvalues of nonnegative Jacobi matrices, 25: 239-253 (1979)
- FRIEDLAND, S. AND ROBBIN, J. W.: Symmetries of tensor products, 44: 97-123 (1982)
- FRIEDLAND, S. AND ZENGER, C.: All spectral dominant norms are stable, 58: 97-107 (1984)
- FRIEDLAND, SHMUEL: A characterization of transform absolute norms, 28: 63-68 (1979)
- FRIEDLAND, SHMUEL: A generalization of the Motzkin-Taussky theorem, 36: 103-109 (1981)
- FRIEDLAND, SHMUEL: Inverse eigenvalue problems, 17: 15-51 (1977)
- FRIEDLAND, SHMUEL: Limit eigenvalues of nonnegative matrices, 74: 173-178 (1986)
- FRIEDLAND, SHMUEL: Matrices satisfying the van der Waerden conjecture, 8: 521-528 (1974)
- FRIEDLAND, SHMUEL: On inverse multiplicative eigenvalue problems for matrices, 12: 127-137 (1975)
- FRIEDLAND, SHMUEL: The maximal eigenvalue of 0-1 matrices with prescribed number of ones, 69: 33-69 (1985)
- FRIEDLAND, SHMUEL: Weak interlacing properties of totally positive matrices, 71: 95-100 (1985)
- FRIEDLAND, SHMUEL: See Bhatia, Rajendra
- FRIEDLAND, SHMUEL: See Cohen, Joel E.
- FRIEDLAND, SHMUEL AND KATZ, MOSHE: On a matrix inequality, 85: 185-190 (1987)
- FRIEDLAND, SHMUEL AND MICCHELLI, CHARLES A.: Bounds on the solutions of difference equations and spline interpolation at knots, 20: 219-251 (1978)
- FRIEDLAND, SHMUEL AND SIMON, BARRY: The codimension of degenerate pencils, 44: 41-53 (1982)
- FRIEDLAND, SHMUEL AND TADMOR, EITAN: Optimality of the Lax-Wendroff condition, 56: 121-129 (1984)
- FRIEDLANDER, B., MORF, M., KAILATH, T., AND LJUNG, L.: New inversion formulas for matrices classified in terms of their distance from Toeplitz matrices, 27: 31-60 (1979)
- FRIEDMAN, NATHAN AND BOYARSKY, ABRAHAM:

- Irreducibility and primitivity using Markov maps, 37: 103-117 (1981)
- FRIEDMAN, NATHAN AND BOYARSKY, ABRAHAM: Matrices and eigenfunctions induced by Markov maps, 38: 141-147 (1981)
- FRYDMAN, HALINA: A structure of doubly stochastic Markov chains, 67: 51-66 (1985)
- FU, LORRAINE: An inverse theorem for Jacobi matrices, 12: 55-61 (1975)
- FUHRMANN, P. A.: See Shamir, T.
- FUHRMANN, PAUL A.: On Hamiltonian rational transfer functions, 63: 1-93 (1984)
- FUHRMANN, PAUL A.: On symmetric rational transfer functions, 50: 167-250 (1983)
- FUHRMANN, PAUL A.: Remarks on the inversion of Hankel matrices, 81: 89-104 (1986)
- FUJIMOTO, TAKAO, HERRERO, CARMEN, AND VILLAR, ANTONIO: A sensitivity analysis for linear systems involving M -matrices and its application to the Leontief model, 64: 85-91 (1985)
- FUJIMOTO, TAKAO AND KRAUSE, ULRICH: Strong ergodicity for strictly increasing nonlinear operators, 71: 101-112 (1985)
- FUJISHIGE, SATORU: A system of linear inequalities with a submodular function on $\{0, \pm 1\}$ vectors, 63: 253-266 (1984)
- FUJIWARA, O.: See Han, S.-P.
- FULTON, JOHN D.: Characterization and enumeration of linear classes of involutions over a finite field, 6: 119-127 (1973)
- FULTON, JOHN D.: Generalized inverses of matrices over fields of characteristic two, 28: 69-76 (1979)
- FULTON, JOHN D.: Linear classes of involutions over fields of characteristic two, 6: 129-142 (1973)
- FUNDERLIC, R. E.: Some characterizations of orthant monotonic norms, 28: 77-83 (1979)
- FUNDERLIC, R. E.: See Cline, R. E.
- FUNDERLIC, R. E. AND GEIST, GEORGE A.: Torus data flow for parallel computation of missized matrix problems: Special volume on parallel computing, 77: 149-163 (1986)
- FUNDERLIC, R. E. AND MEYER, C. D., JR.: Sensitivity of the stationary distribution vector for an ergodic Markov chain, 76: 1-17 (1986)
- FUNDERLIC, R. E. AND PLEMMONS, R. J.: LU decomposition of M -matrices by elimination without pivoting, 41: 99-110 (1981)
- GABRIEL, J. R.: See Dongarra, J. J.
- GABRIEL, RICHARD: The normal ΔH -matrices with connection to some Jacobi-like methods, 91: 181-194 (1987)
- GABRIEL, RICHARD AND HARTWIG, ROBERT E.: The Drazin inverse as a gradient, 63: 237-252 (1984)
- GAIHA, PRABHA: See Berman, Abraham
- GAINES, F. J. AND LAFFEY, T. J.: Report on the Dublin Matrix Theory Conference, March 1984, 68: 243-274 (1985)
- GAINES, FERGUS: Kato-Taussky-Wielandt commutator relations, 1: 127-138 (1968)
- GAINES, FERGUS J., LAFFEY, THOMAS J., AND SHAPIRO, HELENE M.: Pairs of matrices with quadratic minimal polynomials, 52: 289-292 (1983)
- GAINES, FERGUS J. AND LAFFEY, THOMAS J.: The mathematical work of Walter Ledermann, 69: iii, 1-8 (1985)
- GALKOWSKI, KRZYSZTOF: Three-way companion matrices of three-variable polynomials, 37: 55-75 (1981)
- GALLAI, TIBOR: The life and scientific work of Denes Konig (1884-1944), 21: 189-205 (1978)
- GALPERIN, A. M. AND WAKSMAN, Z.: On pseudo-inverses of operator products, 33: 123-131 (1980)
- GAMBLE, R. O.: See Brawley, J. V.
- GARCIA, C. B. AND ZANGWILL, W. I.: On univalence and P -matrices, 24: 239-250 (1979)
- GARDINER, A.: Antipodal graphs of diameter three, 46: 215-219 (1982)
- GARLOFF, J.: See Bialas, S.
- GARLOFF, JURGEN: Criteria for sign regularity of sets of matrices, 44: 153-160 (1982)
- GARLOFF, JURGEN: Majorization between the diagonal elements and the eigenvalues of an oscillating matrix, 47: 181-184 (1982)
- GAROLA, C. AND SOLOMBRINO, L.: Commutation in vector spaces over division rings with a conjugation, 36: 41-56 (1981)
- Gasca, M.: See Muhlbach, G.
- GASTINEL, N. AND JOLY, J. L.: Condition numbers and general projection method, 3: 185-224 (1970)
- GASTINEL, NOEL: Noel Gastinel and computational mathematics, 78: 237-247 (1986)
- GAUTSCHI, WALTER: The condition of

- Vandermonde-like matrices involving orthogonal polynomials, 52: 293-300 (1983)
- GAUTSCHI, WALTER: To Alexander M. Ostrowski on his ninetieth birthday, 52: xi-xiv (1983)
- GEIST, GEORGE A.: See Funderlic, R. E.
- GEKELER, ECKART: On the pointwise matrix product and the mean value theorem, 35: 183-191 (1981)
- GELDENHUYS, G. AND SIPPEL, C.: Bounds for the real eigenvalues of a cascade matrix, 93: 127-130 (1987)
- GENDREAU, MICHEL: On the location of eigenvalues of off-diagonal constant matrices, 79: 99-102 (1986)
- GENIN, Y.: See Delsarte, P.
- GENIN, YVES, VAN DOOREN, PAUL, KAILATH, TOM, DELOSME, JEAN-MARC, AND MORF, MARTIN: On Σ -lossless transfer functions and related questions, 50: 251-275 (1983)
- GENTLEMAN, W. M.: Error analysis of QR decompositions by Givens transformations, 10: 189-197 (1975)
- GENTRY, IVEY C.: See Brauer, Alfred
- GEORGE, ALAN, HEATH, MICHAEL T., AND LIU, JOSEPH: Parallel Cholesky factorization on a shared-memory multiprocessor: Special volume on parallel computing, 77: 165-187 (1986)
- GEORGE, ALAN AND HEATH, MICHAEL T.: Solution of sparse linear least squares problems using Givens rotations, 34: 69-83 (1980)
- GEORGE, ALAN, LIU, JOSEPH, AND NG, ESMOND: Row-ordering schemes for sparse Givens transformations. I. Bipartite graph model, 61: 55-81 (1984)
- GEORGE, ALAN, LIU, JOSEPH, AND NG, ESMOND: Row-ordering schemes for sparse Givens transformations. II. Implicit graph model, 75: 203-222 (1986)
- GEORGE, ALAN, LIU, JOSEPH, AND NG, ESMOND: Row-ordering schemes for sparse Givens transformations. III. Analyses for a model problem, 75: 225-240 (1986)
- GEORGE, ALAN AND LIU, JOSEPH W. H.: Householder reflections versus Givens rotations in sparse orthogonal decomposition, 88: 223-238 (1987)
- GEORGE, ALAN AND RASHWAN, HAMZA: On symbolic factorization of partitioned sparse symmetric matrices, 34: 145-157 (1980)
- GEORGIOU, TRYPHON T.: See Khargonekar, Pramod P.
- GERSTEIN, LARRY J.: A local approach to matrix equivalence, 16: 221-232 (1977)
- GERTH, FRANK, III: Finite Fourier transform for functions with restricted support, 60: 145-158 (1984)
- GETSON, ALBERT: See Hsuan, Francis
- GHATAGE, PRATIBHA G.: On the spectrum of the Bergman-Hilbert matrix, 97: 57-63 (1987)
- GIBSON, J. A.: See Ha, T. T.
- GIBSON, P. M.: Simultaneous diagonalization of rectangular complex matrices, 9: 45-53 (1974)
- GIBSON, P. M.: See Beasley, E. T., Jr.
- GIBSON, P. M.: See Deutsch, Emeric
- GIBSON, PETER M.: Generalized doubly stochastic and permutation matrices over a ring, 30: 101-107 (1980)
- GIBSON, PETER M.: Permanent polytopes of doubly stochastic matrices, 32: 87-111 (1980)
- GIBSON, PETER M.: Products of basic doubly stochastic matrices over a field, 15: 99-118 (1976)
- GIBSON, PETER M.: Real permanent roots of doubly stochastic matrices, 21: 289-291 (1978)
- GIBSON, PETER M.: See Brualdi, Richard A.
- GIBSON, PETER M.: See Dow, Stephen J.
- GILBERT, J. D.: See Wibker, E. A.
- GILBERT, JIMMIE D.: See Barwick, David T.
- GILES, F. R. AND PULLEYBLANK, W. R.: Total dual integrality and integer polyhedra, 25: 191-196 (1979)
- GILL, PHILIP E. AND MURRAY, WALTER: A numerically stable form of the simplex algorithm, 7: 99-138 (1973)
- GILL, PHILIP E., MURRAY, WALTER, SAUNDERS, MICHAEL A., AND WRIGHT, MARGARET H.: Maintaining LU factors of a general sparse matrix, 88: 239-270 (1987)
- GILMAN, JANE: A matrix representation for automorphisms of compact Riemann surfaces, 17: 139-147 (1977)
- GIOVAGNOLI, A. AND WYNN, H. P.: G-majorization with applications to matrix orderings, 67: 111-135 (1985)

- GIVENS, CLARK R.: On the modified Leverrier-Faddeev algorithm, 44: 161-167 (1982)
- GIVENS, CLARK R.: Some observations on eigenvectors of Hadamard matrices of order 2^n , 56: 245-250 (1984)
- GLESER, LEON J. AND MOORE, DAVID S.: Positive dependence in Markov chains, 70: 131-146 (1985)
- GLOVER, N.: See Hsu, I. S.
- GODSIL, C. D.: Eigenvalues of graphs and digraphs, 46: 43-50 (1982)
- GODSIL, C. D. AND MCKAY, B. D.: Feasibility conditions for the existence of walk-regular graphs, 30: 51-61 (1980)
- GOEL, V. K.: See Jain, S. K.
- GOFF, STUART: Hermitian function matrices which commute with their derivative, 36: 33-40 (1981)
- COFFIN, JEAN-LOUIS AND HOFFMAN, ALAN J.: On the relationship between the Hausdorff distance and matrix distances of ellipsoids, 52: 301-313 (1983)
- GOHBERG, I.: See Ben-Artzi, A.
- GOHBERG, I., KAILATH, T., AND KOLTRACHT, I.: Efficient solution of linear systems of equations with recursive structure, 80: 81-113 (1986)
- GOHBERG, I., KAILATH, T., KOLTRACHT, I., AND LANCASTER, P.: Linear complexity parallel algorithms for linear systems of equations with recursive structure, 88: 271-315 (1987)
- GOHBERG, I., LANCASTER, P., AND RODMAN, L.: Spectral analysis of matrix polynomials. I. Canonical forms and divisors, 20: 1-44 (1978)
- GOHBERG, I., LANCASTER, P., AND RODMAN, L.: Spectral analysis of matrix polynomials. II. The resolvent form and spectral divisors, 21: 65-88 (1978)
- GOHBERG, I., LERER, L., AND RODMAN, L.: Wiener-Hopf factorization of piecewise matrix polynomials, 52: 315-350 (1983)
- GOHBERG, I. AND RODMAN, L.: On the distance between lattices of invariant subspaces of matrices, 76: 85-120 (1986)
- GOHBERG, I. AND RODMAN, L.: On the spectral structure of monic matrix polynomials and the extension problem, 24: 157-172 (1979)
- GOHBERG, ISRAEL: See Ball, Joseph A.
- GOHBERG, ISRAEL: See Dym, Harry
- GOHBERG, ISRAEL: See Ellis, Robert L.
- GOHBERG, ISRAEL AND GOLDBERG, SEYMOUR: Finite-dimensional Wiener-Hopf equations and factorizations of matrices, 48: 219-236 (1982)
- GOLDBERG, M. AND ZWAS, G.: On matrices having equal spectral radius and spectral norm, 8: 427-434 (1974)
- GOLDBERG, MOSHE: Ernst G. Straus (1922-1983), 64: 1-19 (1985)
- GOLDBERG, MOSHE: Mixed multiplicativity and l_p norms for matrices, 73: 123-131 (1986)
- GOLDBERG, MOSHE: Multiplicativity factors and mixed multiplicativity, 97: 45-56 (1987)
- GOLDBERG, MOSHE: Multiplicativity of l_p norms for matrices. II, 62: 1-10 (1984)
- GOLDBERG, MOSHE AND STRAUS, E. G.: Elementary inclusion relations for generalized numerical ranges, 18: 1-24 (1977)
- GOLDBERG, MOSHE AND STRAUS, E. G.: Multiplicativity factors for C -numerical radii, 54: 1-16 (1983)
- GOLDBERG, MOSHE AND STRAUS, E. G.: Multiplicativity of l_p norms for matrices, 52: 351-360 (1983)
- GOLDBERG, MOSHE AND STRAUS, E. G.: Norm properties of C -numerical radii, 24: 113-131 (1979)
- GOLDBERG, MOSHE AND STRAUS, E. G.: Operator norms, multiplicativity factors, and C -numerical radii, 43: 137-159 (1982)
- GOLDBERG, MOSHE AND STRAUS, ERNST G.: Inclusion relations involving k -numerical ranges, 15: 261-270 (1976)
- GOLDBERG, MOSHE, TADMOR, EITAN, AND ZWAS, GIDEON: Numerical radius of positive matrices, 12: 209-214 (1975)
- GOLDBERG, MOSHE AND TADMOR, EITAN: On the numerical radius and its applications, 42: 263-284 (1982)
- GOLDBERG, SEYMOUR: See Gohberg, Israel
- GOLDBERG, WALLACE: See Hochstadt, Harry
- GOLLER, HANS: Shorted operators and rank decomposition matrices, 81: 207-236 (1986)
- GOLUB, G. H.: See Kaatsky, J.
- GOLUB, G. H.: See de Boor, C.

- GOLUB, G. H., HOFFMAN, ALAN, AND STEWART, G. W.: A generalization of the Eckart-Young-Mirsky matrix approximation theorem, 88: 317-327 (1987)
- GOLUB, GENE H., DUFF, IAIN, AND MOLER, CLEVE: Dedication, 88: 1-12 (1987)
- GOLUB, GENE H. AND PLEMMONS, ROBERT J.: Large-scale geodetic least-squares adjustment by dissection and orthogonal decomposition, 34: 3-28 (1980)
- GOLUB, GENE H. AND VAN LOAN, CHARLES: Unsymmetric positive definite linear systems, 28: 85-97 (1979)
- GOMORY, RALPH E.: Some polyhedra related to combinatorial problems, 2: 451-558 (1969)
- GOODMAN, T. N. T. AND MICCHELLI, CHARLES A.: Corner cutting algorithms for the Bézier representation of free form curves, 99: 225-252 (1988)
- GORDON, WILLIAM ROBERT: See Marcus, Marvin
- GORELICK, MICHAEL R. AND KRANZER, HERBERT C.: An extension of the Kreiss stability theorem to families of matrices of unbounded order, 14: 237-255 (1976)
- GOTTLIEB, D.: See Abarbanel, S.
- GOTTLIEB, DAVID AND GUNZBURGER, MAX D.: On the matrix equations $AH + HA^* = A^*H + HA = I$, 17: 277-282 (1977)
- GOULD, N. I. M.: See Caron, R. J.
- GOVER, M. J. C. AND BARNETT, S.: Displacement rank and quasitriangular decomposition for r -Toeplitz matrices, 88: 329-348 (1987)
- GOVER, M. J. C. AND BARNETT, S.: Generating polynomials for matrices with Toeplitz or conjugate-Toeplitz inverses, 61: 253-275 (1984)
- GOW, R.: The number of equivalence classes of nondegenerate bilinear and sesquilinear forms over a finite field, 41: 175-181 (1981)
- GOW, R. AND LAFFEY, T. J.: Pairs of alternating forms and products of two skew-symmetric matrices, 63: 119-132 (1984)
- OWDA, M. SEETHARAMA: Cone characterizations of positive semidefinite operators on a Hilbert space, 64: 77-83 (1985)
- GOWER, J. C.: A modified Leverrier-Faddeev algorithm for matrices with multiple eigenvalues, 31: 61-70 (1980)
- GOWER, J. C.: Properties of Euclidean and non-Euclidean distance matrices, 67: 81-97 (1985)
- GRAD, J.: See Brebner, M. A.
- GRAGG, W. B. AND REICHEL, L.: On the application of orthogonal polynomials to the iterative solution of linear systems of equations with indefinite or non-Hermitian matrices, 88: 349-371 (1987)
- GRAGG, WILLIAM B. AND LINDQUIST, ANDERS: On the partial realization problem, 50: 277-319 (1983)
- GRAHAM, R. L. AND SLOANE, N. J. A.: Anti-Hadamard matrices, 62: 113-137 (1984)
- GRANOT, DANIEL: See Charnes, A.
- GRANOT, FRIEDA: See Charnes, A.
- GRAVER, JACK E.: Boolean designs and self-dual matroids, 10: 111-128 (1975)
- GRAY, L. J. AND WILSON, D. G.: Construction of a Jacobi matrix from spectral data, 14: 131-134 (1976)
- GRAY, L. J. AND WILSON, D. G.: Nonnegative factorization of positive semidefinite non-negative matrices, 31: 119-127 (1980)
- GREEN, B. M.: On weakly sign-symmetric matrices, 8: 355-360 (1974)
- GREEN, MICHAEL: Balanced stochastic realizations, 98: 211-247 (1988)
- GREENFIELD, GARY R. AND DRUCKER, DANIEL: On the discriminant of a trinomial, 62: 105-112 (1984)
- GREGORAC, R. J. AND HENTZEL, IRVIN ROY: A note on the analogue of Oppenheim's inequality for permanents, 94: 109-112 (1987)
- GREGORY, D. A.: See de Caen, D.
- GREGORY, DAVID A.: See Beasley, LeRoy B.
- GREVILLE, T. N. E.: The Souriau-Frame algorithm and the Drazin pseudoinverse, 6: 205-208 (1973)
- GREVILLE, T. N. E.: Toeplitz matrices with Toeplitz inverses revisited, 55: 87-92 (1983)
- GREVILLE, T. N. E.: See Cline, Randall E.
- GREVILLE, T. N. E. AND TRENCH, W. F.: Band matrices with Toeplitz inverses, 27: 199-209 (1979)
- GRIFFITHS, D. F.: See Fletcher, R.
- GRINBERG, V. S.: See Barany, I.
- GROH, ULRICH: Some observations on the spectra of positive operators on finite-dimensional C^* -algebras, 42: 213-222 (1982)

- GRONE, ROBERT: A note on the dimension of an orbital subspace, 17: 283-286 (1977)
- GRONE, ROBERT: Certain isometries of rectangular complex matrices, 29: 161-171 (1980)
- GRONE, ROBERT: See Fiedler, Miroslav
- GRONE, ROBERT, JOHNSON, CHARLES R., SA, EDUARDO M., AND WOLKOWICZ, HENRY: Normal matrices, 87: 213-225 (1987)
- GRONE, ROBERT, JOHNSON, CHARLES R., SA, EDUARDO M., AND WOLKOWICZ, HENRY: Positive definite completions of partial Hermitian matrices, 58: 109-124 (1984)
- GRONE, ROBERT, JOHNSON, CHARLES R., SA, EDUARDO M., AND WOLKOWICZ, HENRY: Positive definite completions of partial Hermitian matrices, 58: 109-124 (1984)
- GRONE, ROBERT AND MERRIS, RUSSELL: A Fischer inequality for the second immanant, 87: 77-83 (1987)
- GRONE, ROBERT D., HOFFMAN, D. G., AND WALL, J. R.: Permutation-matrix groups with positive sum, 45: 29-34 (1982)
- GROSSE, ERIC: Tensor spline approximation, 34: 29-41 (1980)
- GRUNBAUM, F. ALBERTO: A remark on Hilbert's matrix, 43: 119-124 (1982)
- GRUNBAUM, F. ALBERTO: Toeplitz matrices commuting with tridiagonal matrices, 40: 25-36 (1981)
- GUICHAL, EDGARDO N.: A relation between Gram and Wronsky determinants, 72: 59-72 (1985)
- GUNN, E. A. AND ANDERS, G. J.: A comparison of interval linear programming with the simplex method, 38: 149-159 (1981)
- GUNZBURGER, M. D. AND NICOLAIDES, R. A.: Elimination with noninvertible pivots, 64: 183-189 (1985)
- GUNZBURGER, MAX D.: See Gottlieb, David
- GUNZBURGER, MAX D. AND NICOLAIDES, R. A.: Stability of Gaussian elimination without pivoting on tridiagonal Toeplitz matrices, 45: 21-28 (1982)
- GURALNICK, ROBERT AND LANSKI, CHARLES: Pseudosimilarity and cancellation of modules, 47: 111-115 (1982)
- GURALNICK, ROBERT M.: A note on the local-global principle for similarity of matrices, 30: 241-245 (1980)
- GURALNICK, ROBERT M.: Invariants of finite linear groups on relatively free algebras, 72: 85-92 (1985)
- GURALNICK, ROBERT M.: Matrix equivalence and isomorphism of modules, 43: 125-136 (1982)
- GURALNICK, ROBERT M.: Roth's theorems and decomposition of modules, 39: 155-165 (1981)
- GURALNICK, ROBERT M.: Roth's theorems for sets of matrices, 71: 113-117 (1985)
- GURALNICK, ROBERT M.: Similarity of holomorphic matrices, 99: 85-96 (1988)
- GURALNICK, ROBERT M.: Similarity of matrices over local rings, 41: 161-174 (1981)
- GUSTAFSON, W. H., HALMOS, P. R., AND RADJAVI, H.: Products of involutions: Collection of articles dedicated to Olga Tausky Todd, 13: 157-162 (1976)
- GUSTAFSON, WILLIAM H.: A note on matrix inversion, 57: 71-73 (1984)
- GUSTAFSON, WILLIAM H.: Roth's theorems over commutative rings, 23: 245-251 (1979)
- GUSTAFSON, WILLIAM H.: See Habibi, Javad Faghih
- GUSTAFSON, WILLIAM H. AND ZELMANOWITZ, JULIUS M.: On matrix equivalence and matrix equations, 27: 219-224 (1979)
- CUTMAN, SHAUL: See Taub, Hedi
- HA, T. T. AND GIBSON, J. A.: A note on the determinant of a functional confluent Vandermonde matrix and controllability, 30: 69-75 (1980)
- HAACK, JOEL K.: When do the transpose and dual agree?, 56: 63-72 (1984)
- HABETLER, G. J.: See Cottle, R. W.
- HABIBI, JAVAD FAGHIH AND GUSTAFSON, WILLIAM H.: Reflexive serial algebras, 99: 217-223 (1988)
- HACKBUSCH, WOLFGANG: Multigrid convergence for a singular perturbation problem, 58: 125-145 (1984)
- HADELER, K. P.: Ein inverses Eigenwertproblem, 1: 83-102 (1968)
- HADELER, K. P.: Multiplikative inverse Eigenwertprobleme, 2: 65-86 (1969)
- HADELER, K. P.: On copositive matrices, 49: 79-89 (1983)
- HADELER, K. P.: Submultiplikative Normen auf Algebren, 2: 173-189 (1969)
- HADELER, K. P.: See Deutsch, E.

- HADELER, K. P.: See Elsner, L.
- HADELER, K. P. AND MEINARDUS, G.: On the roots of Cauchy polynomials, 38: 81-102 (1981)
- HADJIDIMOS, A.: The optimal solution to the problem of complex extrapolation of a first-order scheme, 62: 241-261 (1984)
- HADJIDIMOS, A.: See Avdelas, G.
- HADJIDIMOS, A., PSIMARNI, A., AND YEYIOS, A.: On the convergence of some generalized iterative methods, 75: 117-132 (1986)
- HADJIDIMOS, A. AND YEYIOS, A.: The principle of extrapolation in connection with the accelerated overrelaxation method, 30: 115-128 (1980)
- HADJISAVVAS, NICOLAS: Metrics on the set of states of a W^* -algebra: Proceedings of the symposium on operator theory (Athens, 1985), 84: 281-287 (1986)
- HAERTEL, RAYMOND D.: See Barker, George Phillip
- HAGER, RICHARD: See Donald, John
- HAGER, WILLIAM W. AND PEDERSON, ROGER N.: Perturbations in eigenvalues, 42: 39-55 (1982)
- HALD, OLE H.: Inverse eigenvalue problems for Jacobi matrices, 14: 63-85 (1976)
- HALD, OLE H.: Numerical solution of the Gel'fand-Levitan equation, 28: 99-111 (1979)
- HALD, OLE HANSEN: A converse to the Bauer-Fike theorem, 9: 267-274 (1974)
- HALE, MARK P., JR.: See Farmer, K. Bolling
- HALEY, STEPHEN B.: Solution of band matrix equations by projection-recurrence, 32: 33-48 (1980)
- HALL, ALASTAIR: Conditions for a matrix Kronecker lemma, 76: 271-280 (1986)
- HALL, C. A.: See Frey, A. E.
- HALL, FRANK J.: On the independence of blocks of generalized inverses of bordered matrices, 14: 53-61 (1976)
- HALL, FRANK J.: See Bevis, Jean H.
- HALL, FRANK J. AND KATZ, IRVING J.: Non-negative integral generalized inverses, 39: 23-39 (1981)
- HALL, JONATHAN I.: Linear representations of cotriangular spaces, 49: 257-273 (1983)
- HALLUM, C. R.: See McMath, John S.
- HALMOS, P. R.: Eigenvectors and adjoints, 4: 11-15 (1971)
- HALMOS, P. R.: See Conway, J. B.
- HALMOS, P. R.: See Gustafson, W. H.
- HALPIN, PATRICK: Symmetric T -ideals, 79: 53-59 (1986)
- HAMMARLING, SVEN: See Björck, Ake
- HAMMARLING, SVEN: See Dongarra, Jack J.
- HAMMER, JACOB AND HEYMANN, MICHAEL: Factorization of linear systems: a generalized framework, 50: 321-352 (1983)
- HAN, S.-P.: Relative eigenvalues of Hermitian matrices, 81: 75-88 (1986)
- HAN, S.-P. AND FUJIWARA, O.: An inertia theorem for symmetric matrices and its application to nonlinear programming, 72: 47-58 (1985)
- HAN, S. P. AND MANGASARIAN, O. L.: Conjugate cone characterization of positive definite and semidefinite matrices, 56: 89-103 (1984)
- HANKINS, MAX: See Brawley, J. V.
- HANNAH, JOHN AND LAFFEY, THOMAS J.: Non-negative factorization of completely positive matrices, 55: 1-9 (1983)
- HANSEN, ELDON: On the solution of linear algebraic equations with interval coefficients, 2: 153-165 (1969)
- HANSEN, GARY W. AND ROBINSON, DONALD W.: On the existence of generalized inverses, 8: 95-104 (1974)
- HANSON, MORGAN A.: See Mond, Bertram
- HANSON, MORGAN A.: See Mond, Bertram
- HARI, V.: On the convergence of cyclic Jacobi-like processes, 81: 105-127 (1986)
- HARTFIEL, D. J.: A control theory for stochastic eigenvectors of stochastic matrices through variations of entries, 56: 139-160 (1984)
- HARTFIEL, D. J.: A general theory of measures for nonnegative matrices, 35: 21-35 (1981)
- HARTFIEL, D. J.: A result concerning strongly ergodic nonhomogeneous Markov chains, 9: 169-174 (1974)
- HARTFIEL, D. J.: Concerning the interior of the D -stable matrices, 30: 201-207 (1980)
- HARTFIEL, D. J.: Mathematical considerations of nonhomogeneous production processes, 16: 95-107 (1977)
- HARTFIEL, D. J.: Two theorems generalizing

- the mean transition probability results in the theory of Markov chains, 11: 181-187 (1975)
- HARTFIEL, D. J. AND LOEWY, R.: On matrices having equal corresponding principal minors, 58: 147-167 (1984)
- HARTWIG, R. E.: Generalizations of the spectral theorem for matrices. II. Matrix polynomials over arbitrary fields, 61: 37-53 (1984)
- HARTWIG, R. E.: The reverse order law revisited, 76: 241-246 (1986)
- HARTWIG, ROBERT E.: 1-2 inverses and the invariance of BA^+C , 11: 271-275 (1975)
- HARTWIG, ROBERT E.: A note on light matrices, 97: 153-169 (1987)
- HARTWIG, ROBERT E.: Applications of the Wronskian and Gram matrices of $\{t^i e^{\lambda k t}\}$ (Report), 43: 229-241 (1982)
- HARTWIG, ROBERT E.: Drazin inverses and canonical forms in $M_n(\mathbb{C}/h)$, 37: 205-233 (1981)
- HARTWIG, ROBERT E.: Resultants, companion matrices, and Jacobson chains, 94: 1-34 (1987)
- HARTWIG, ROBERT E.: Roth's removal rule revisited, 49: 91-115 (1983)
- HARTWIG, ROBERT E.: Spectral inverses and the row-space equations, 20: 57-68 (1978)
- HARTWIG, ROBERT E.: See Bevis, Jean H.
- HARTWIG, ROBERT E.: See Gabriel, Richard
- HARTWIG, ROBERT E. AND KATZ, IRVING J.: Products of EP elements in reflexive semigroups, 14: 11-19 (1976)
- HARTWIG, ROBERT E. AND PUTCHA, MOHAN S.: Semisimilarity for matrices over a division ring, 39: 125-132 (1981)
- HARTWIG, ROBERT E. AND STYAN, GEORGE P. H.: On some characterizations of the "star" partial ordering for matrices and rank subtractivity, 82: 145-161 (1986)
- HAUKE, JAN: See Baksalary, Jerzy K.
- HAUTUS, M. L. J.: Strong detectability and observers, 50: 353-368 (1983)
- HAUTUS, M. L. J. AND SILVERMAN, L. M.: System structure and singular control, 50: 369-402 (1983)
- HAVIV, MOSHE, RITOV, YAKOV, AND ROTHEBLUM, URIEL G.: Iterative methods for approximating the subdominant modulus of an eigenvalue of a nonnegative matrix, 87: 61-75 (1987)
- HAVIV, MOSHE AND ROTHEBLUM, URIEL G.: Bounds on distances between eigenvalues, 63: 101-118 (1984)
- HAYES, LINDA: See Fox, L.
- HAYNSWORTH, EMILIE: Emilie Haynsworth, 1916-1985, 75: 269-276 (1986)
- HAYNSWORTH, EMILIE: See Burns, Fennell
- HAYNSWORTH, EMILIE, FIEDLER, MIROSLAV, AND PTAK, VLASTIMIL: Extreme operators on polyhedral cones: Collection of articles dedicated to Olga Taussky Todd, 13: 163-172 (1976)
- HAYNSWORTH, EMILIE AND HOFFMAN, A. J.: Two remarks on copositive matrices, 2: 387-392 (1969)
- HAYNSWORTH, EMILIE AND WALL, J. R.: Group inverses of certain nonnegative matrices, 25: 271-288 (1979)
- HAYNSWORTH, EMILIE AND WALL, J. R.: Group inverses of certain positive operators, 40: 143-159 (1981)
- HAYNSWORTH, EMILIE V.: Determination of the inertia of a partitioned Hermitian matrix, 1: 73-82 (1968)
- HAYNSWORTH, EMILIE V.: Reduction of a matrix using properties of the Schur complement, 3: 23-29 (1970)
- HAYNSWORTH, EMILIE V.: See Carlson, David
- HAYNSWORTH, EMILIE V. AND OSTROWSKI, ALEXANDER M.: On the inertia of some classes of partitioned matrices, 1: 299-316 (1968)
- HEADING, J.: Generalized zilch and the Jordan canonical form, 6: 19-36 (1973)
- HEADING, JOHN: Construction of generalized anisotropic zilch, 11: 277-289 (1975)
- HEADING, JOHN: Invariant functions of the elements of the powers of a square matrix, 55: 133-145 (1983)
- HEADING, JOHN: Zilch and simultaneous partial differential equations, 2: 413-425 (1969)
- HEARON, JOHN Z.: Nonsingular solutions of $TA - BT = C$, 16: 57-63 (1977)
- HEARON, JOHN Z.: Roots of an irreducible continuant, 3: 125-127 (1970)
- HEATH, M. T. AND SORESENSEN, D. C.: A pipelined Givens method for computing the QR

- factorization of a sparse matrix: Special volume on parallel computing, 77: 189-203 (1986)
- HEATH, MICHAEL T.: See George, Alan
- HEATH, MICHAEL T.: See Scott, David S.
- HEDRICK, MARK B.: See Brualdi, Richard A.
- HEDRICK, MARK BLONDEAU: p -minors of a doubly stochastic matrix at which the permanent achieves a minimum, 10: 177-179 (1975)
- HEINIG, GEORG AND JUNGNIKKEL, UWE: Hankel matrices generated by the Markov parameters of rational functions, 76: 121-135 (1986)
- HEINIG, GEORG AND JUNGNIKKEL, UWE: Lyapunov equations for companion matrices, 76: 137-147 (1986)
- HEINTZ, JOOS: See de Groote, Hans F.
- HEINZ, TONY F.: Topological properties of orthostochastic matrices, 20: 265-269 (1978)
- HELLEGOUARCH, YVES: Propriétés géométrico-arithmétiques des algèbres à involution: Geometric and arithmetical properties of algebras with involution, 97: 29-43 (1987)
- HELMKE, UWE AND SHAYMAN, MARK A.: The biflag manifold and the fixed points of a unipotent transformation on the flag manifold, 92: 125-159 (1987)
- HENRICI, PETER: A general theory of osculation algorithms for conformal mapping, 52: 361-382 (1983)
- HENRICI, PETER AND ZIMMERMANN, KATHARINA: An estimate for the norms of certain cyclic Jacobi operators, 1: 489-501 (1968)
- HENTZEL, IRVIN ROY: See Gregorac, R. J.
- HERMAN, C. T.: See Eggermont, P. P. B.
- HERNANDEZ, VICENTE G. AND INCERTIS, FERNANDO C.: A block bidiagonal form for block companion matrices, 75: 241-256 (1986)
- HERRERO, CARMEN: See Fujimoto, Takao
- HERRERO, DOMINGO A.: See Fillmore, P. A.
- HERSHEY, J.: See Yariagadda, R.
- HERSHKOWITZ, DANIEL: On the spectra of matrices having nonnegative sums of principal minors, 55: 81-86 (1983)
- HERSHKOWITZ, DANIEL: Stability of acyclic matrices, 73: 157-169 (1986)
- HERSHKOWITZ, DANIEL: See Berman, Abraham
- HERSHKOWITZ, DANIEL AND BERMAN, ABRAHAM: Localization of the spectra of P - and P_0 -matrices, 52: 383-397 (1983)
- HERSHKOWITZ, DANIEL AND BERMAN, ABRAHAM: Notes on ω - and τ -matrices, 58: 169-183 (1984)
- HERSHKOWITZ, DANIEL AND JOHNSON, CHARLES R.: Linear transformations that map the P -matrices into themselves, 74: 23-38 (1986)
- HERSHKOWITZ, DANIEL AND JOHNSON, CHARLES R.: Spectra of matrices with P -matrix powers, 80: 159-171 (1986)
- HERSHKOWITZ, DANIEL, MEHRMANN, VOLKER, AND SCHNEIDER, HANS: Eigenvalue interlacing for certain classes of matrices with real principal minors, 88: 373-403 (1987)
- HERSHKOWITZ, DANIEL AND MEHRMANN, VOLKER: Linear transformations which map the classes of ω -matrices and τ -matrices into or onto themselves, 78: 79-106 (1986)
- HERSHKOWITZ, DANIEL AND SCHNEIDER, HANS: Lyapunov diagonal semistability of real H -matrices, 71: 119-149 (1985)
- HERZER, ARMIN AND HUPPERT, BERTRAM: Ein Satz von I. Schur über vertauschbare Matrizen: A theorem of I. Schur on commutative matrices, 71: 151-158 (1985)
- HESS, PETER: On the spectrum of elliptic operators with respect to indefinite weights: Proceedings of the symposium on operator theory (Athens, 1985), 84: 99-109 (1986)
- HESTENES, MAGNUS R.: Pairs of quadratic forms, 1: 397-407 (1968)
- HEUVERS, KONRAD JOHN: On the types of functions which can serve as scalar products in a complex linear space, 6: 83-96 (1973)
- HEYMANN, MICHAEL: See Hammer, Jacob
- HEYMANN, MICHAEL AND THORPE, JOHN A.: A note on minimal polynomials, 7: 279-280 (1973)
- HIAI, FUMIO: Similarity preserving linear maps on matrices, 97: 127-139 (1987)
- HIGHAM, NICHOLAS J.: Computing real square roots of a real matrix, 88: 405-430 (1987)
- HIGMAN, D. G.: Coherent algebras, 93: 209-239 (1987)

- HILGERS, JOHN W.: A theory for optimal regularization in the finite-dimensional case, 48: 359-379 (1982)
- HILL, RICHARD: See Carlson, David
- HILL, RICHARD D.: Eigenvalue location using certain matrix functions and geometric curves, 16: 83-91 (1977)
- HILL, RICHARD D.: Inertia theory for simultaneously triangulable complex matrices, 2: 131-142 (1969)
- HILL, RICHARD D.: Linear transformations which preserve hermitian matrices, 6: 257-262 (1973)
- HILL, RICHARD D.: See Barker, George Phillip
- HILL, RICHARD D.: See Oxenrider, Clinton J.
- HILL, RICHARD D.: See Poluikis, John A.
- HILL, RICHARD D.: See Waters, Steven R.
- HILL, RICHARD D. AND WATERS, STEVEN R.: On the cone of positive semidefinite matrices, 90: 81-88 (1987)
- HILLS, NORMAN L.: Transposing a matrix by similarity operations, 22: 163-166 (1978)
- HINRICHSSEN, D. AND KRAUSE, U.: Unique representation in convex sets by extraction of marked components, 51: 73-96 (1983)
- HINRICHSSEN, D. AND PRATZEL-WOLTERS, D.: A wild quiver in linear systems theory, 91: 143-175 (1987)
- HIRZEBRUCH, U.: Produkte positiver elemente in formal-reellen Jordan-Algebren, 8: 263-269 (1974)
- HOCHSTADT, HARRY: A constructive approach to the classical canonical form of linear operators, 3: 347-353 (1970)
- HOCHSTADT, HARRY: An inverse spectral theorem for a Hill's matrix, 57: 21-30 (1984)
- HOCHSTADT, HARRY: On the construction of a Jacobi matrix from mixed given data, 28: 113-115 (1979)
- HOCHSTADT, HARRY: On the construction of a Jacobi matrix from spectral data, 8: 435-446 (1974)
- HOCHSTADT, HARRY: On the theory of Hill's matrices and related inverse spectral problems, 11: 41-52 (1975)
- HOCHSTADT, HARRY: See Chari, Bhagya
- HOCHSTADT, HARRY: See Cheung, Shiu Ming
- HOCHSTADT, HARRY: See Mattis, Michael P.
- HOCHSTADT, HARRY AND GOLDBERG, WALTER: Hill's matrices with some vanishing instability intervals, 97: 121-126 (1987)
- HOCHWALD, SCOTT H.: The uniqueness of the adjoint operation. II, 91: 107-119 (1987)
- HODGES, JOHN H.: See Carlitz, L.
- HOEKSTRA, A. H. AND STEUTEL, F. W.: Limit theorems for Markov chains of finite rank, 60: 65-77 (1984)
- HOFFMAN, A. J.: Eigenvalues and partitionings of the edges of a graph, 5: 137-146 (1972)
- HOFFMAN, A. J.: On graphs whose least eigenvalue exceeds $-1 - \sqrt{2}$, 16: 153-165 (1977)
- HOFFMAN, A. J.: See Barnes, E. R.
- HOFFMAN, A. J.: See Brualdi, R. A.
- HOFFMAN, A. J.: See Haynsworth, Emilie
- HOFFMAN, ALAN: See Colub, G. H.
- HOFFMAN, ALAN J.: Note on a conjecture of Kojima and Saigal, 71: 159-160 (1985)
- HOFFMAN, ALAN J.: Total unimodularity and combinatorial theorems: Collection of articles dedicated to Olga Taussky Todd, 13: 103-108 (1976)
- HOFFMAN, ALAN J.: See Goffin, Jean-Louis
- HOFFMAN, D. G.: See Grone, Robert D.
- HOFFMAN, FREDERICK: Orbits under actions of affine groups over $GF(2)$, 13: 173-176 (1976)
- HOLBROOK, JOHN A. R.: Distortion coefficients for crypto-unitary operators, 19: 189-205 (1978)
- HOLBROOK, JOHN A. R.: Distortion coefficients for cryptocontractions, 18: 229-256 (1977)
- HOLBROOK, JOHN A. R.: Polynomials in a matrix and its commutant, 48: 293-301 (1982)
- HOLBROOK, JOHN A. R.: See Bhatia, Rajendra
- HOLGATE, P.: Canonical multiplication in the genetic algebra for linked loci, 26: 281-287 (1979)
- HOLGATE, P.: The interpretation of derivations in genetic algebras, 85: 75-79 (1987)
- HONG, YOO PYO, HORN, ROGER A., AND JOHNSON, CHARLES R.: On the reduction of pairs of Hermitian or symmetric matrices to diagonal form by congruence, 73: 213-226 (1986)
- HOOVER, DEAN W.: See Marcus, Marvin
- HORN, ROGER A.: On inequalities between Hermitian and symmetric forms, 11: 189-218 (1975)

- HORN, ROGER A.: See Hong, Yoo Pyo
- HORN, ROGER A: See Choudhury, Dipa
- HORNE, C. J. AND MAGAGNA, L.: Monotonicity of the eigenvalues of birth and death matrices, 3: 31-43 (1970)
- HORNE, J. C.: On ideals of cone preserving maps, 21: 95-109 (1978)
- HORNE, J. C.: On the automorphism group of a cone, 21: 111-121 (1978)
- HOSKINS, W. D.: See Andres, T. H.
- HOSKINS, W. D., MEEK, D. S., AND WALTON, D. J.: High-order iterative methods for the solution of the matrix equation $XA + AY = F$, 23: 121-139 (1979)
- HOSKINS, W. D. AND MEEK, D. S.: Order invariant properties of some matrices, 21: 261-269 (1978)
- HOSKINS, W. D. AND THOMAS, R. S. D.: Conditions for isonemal arrays on a Cartesian grid, 57: 87-103 (1984)
- HOSKINS, W. D. AND WALTON, D. J.: A faster, more stable method for computing the p th roots of positive definite matrices, 26: 139-163 (1979)
- HOSKINS, W. D. AND WALTON, D. J.: Methods for solving the matrix equation $TB + CT = -A$ and its generalizations, 23: 217-225 (1979)
- HOST, LINDA H.: Tactical decompositions in uniform normal designs, 75: 105-116 (1986)
- HOUCK, DAVID J. AND PAUL, MICHAEL E.: Non-singular 0-1 matrices with constant row and column sums, 22: 263-266 (1978)
- HOUCK, DAVID J. AND PAUL, MICHAEL E.: On a theorem of de Bruijn and Erdos, 23: 157-165 (1979)
- HOUCK, DAVID J. AND PITTINGER, ARTHUR O.: Analytic proofs of a network feasibility theorem and a theorem of Fulkerson, 24: 151-156 (1979)
- HOUSEHOLDER, A. S.: Multigradients and the zeros of transcendental functions, 4: 175-182 (1971)
- HOUSEHOLDER, A. S.: Preface: A. S. Householder, 28: 1-3 (1 plate) (1979)
- HOUSEHOLDER, A. S.: The Pade table, the Frobenius identities, and the qd algorithm, 4: 161-174 (1971)
- HOWARD, RALPH: Linear maps that preserve matrices annihilated by a polynomial, 30: 167-176 (1980)
- HOWE, R. B.: See Wibker, E. A.
- HOWELL, THOMAS D.: Global properties of tensor rank, 22: 9-23 (1978)
- HOWLAND, JAMES LUCIEN: The sign matrix and the separation of matrix eigenvalues, 49: 221-232 (1983)
- HOWZE, J. W.: See Bhattacharyya, S. P.
- Hsu, I. S., TRUONG, T. K., REED, I. S., AND GLOVER, N.: A VLSI architecture for performing finite field arithmetic with reduced table lookup, 98: 249-262 (1988)
- Hsu, L.: See Kaszkurewicz, E.
- HSUAN, FRANCIS, LANGENBERG, PATRICIA, AND GETSON, ALBERT: The $\{2\}$ -inverse with applications in statistics, 70: 241-248 (1985)
- HU, HUTI: An algorithm for rescaling a matrix positive definite, 96: 131-147 (1987)
- HU, T. C.: On the asymptotic integer algorithm, 3: 279-294 (1970)
- HUANG, C. P.: Computing powers of arbitrary Hessenberg matrices, 21: 123-134 (1978)
- HUDSON, RICHARD H. AND MARKHAM, THOMAS L.: Alfred T. Brauer as a mathematician and teacher, 59: 1-17 (1984)
- HUGHES-HALLETT, A. J.: Techniques which accelerate the convergence of first order iterations automatically, 68: 115-130 (1985)
- HUNG, CHING HSIANG AND MARKHAM, T. L.: The Moore-Penrose inverse of a partitioned matrix $M = \begin{pmatrix} A & D \\ B & C \end{pmatrix}$, 11: 73-86 (1975)
- HUNTER, JEFFREY J.: Generalized inverses and their application to applied probability problems, 45: 157-198 (1982)
- HUNTER, JEFFREY J.: Stationary distributions of perturbed Markov chains, 82: 201-214 (1986)
- HUPPERT, BERTRAM: See Herzer, Armin
- HUYLEBROUCK, D. AND PUYSTJENS, R.: Generalized inverses of a sum with a radical element: Proceedings of the symposium on operator theory (Athens, 1985), 84: 289-300 (1986)
- HWANG, SUK GEUN: A note on a conjecture on permanents, 76: 31-44 (1986)
- HWANG, SUK GEUN: On a conjecture of E. Dittert, 95: 161-169 (1987)

- HWANG, SUK GEUN: The monotonicity of and the Djokovic conjectures on permanents of doubly stochastic matrices, 79: 127-151 (1986)
- IKEBE, YASUHIKO: On inverses of Hessenberg matrices, 24: 93-97 (1979)
- IKEBE, YASUHIKO: See Yamamoto, Tetsuro
- ILIN, V. P.: See Axelsson, O.
- IMAM, I. N.: The Schur complement and the inverse M -matrix problem, 62: 235-240 (1984)
- IMAM, I. N.: Tridiagonal and upper triangular inverse M -matrices, 55: 93-104 (1983)
- INCERTIS, FERNANDO C.: See Hernandez, Vicente G.
- IOCHUM, BRUNO: See Bellissard, Jean
- IONESCU, TUDOR: On the generators of semi-simple Lie algebras, 15: 271-292 (1976)
- IPSEN, ILSE C. F.: See Delosme, Jean-Marc
- IPSEN, ILSE C. F., SAAD, YOUSSEF, AND SCHULTZ, MARTIN H.: Complexity of dense-linear-system solution on a multiprocessor ring: Special volume on parallel computing, 77: 205-239 (1986)
- IRI, MASAO: The maximum-rank minimum-term-rank theorem for the pivotal transforms of a matrix, 2: 427-446 (1969)
- ISAACS, I. M.: Automorphisms of matrix algebras over commutative rings, 31: 215-231 (1980)
- ISAACSON, DEAN AND SENETA, E.: Ergodicity for countable inhomogeneous Markov chains, 48: 37-44 (1982)
- ISHAQ, M. AND MERRIS, RUSSELL: Matrix functions afforded by entries of unitary representations, 25: 255-269 (1979)
- ISHIBASHI, HIROYUKI: Generation of classical groups over finite fields, 51: 9-15 (1983)
- ISHIBASHI, HIROYUKI: See Ellers, Erich W.
- ISHIHARA, KAZUO: Strong and weak discrete maximum principles for matrices associated with elliptic problems, 88: 431-448 (1987)
- ITO, TATSURO: Bipartite distance-regular graphs of valency three, 46: 195-213 (1982)
- IUSEM, ALFREDO N.: See De Pierro, Alvaro R.
- JACOBSON, D. H.: Factorization of symmetric M -matrices, 9: 275-278 (1974)
- JACOBSON, D. H.: See Martin, D. H.
- JAFARIAN, A. A.: See Choi, M. D.
- JAIN, S. K.: Overdetermined linear systems satisfying nonnegativity constraints, 57: 205-213 (1984)
- JAIN, S. K., GOEL, V. K., AND KWAK, EDWARD K.: Nonnegative m th roots of nonnegative 0-symmetric idempotent matrices, 23: 37-51 (1979)
- JAIN, S. K. AND GOEL, V. K.: Nonnegative matrices having nonnegative Drazin pseudoinverses, 29: 173-183 (1980)
- JAMES, N. S. AND LIDL, R.: Permutation polynomials on matrices, 96: 181-190 (1987)
- JAMISON, ROBERT E.: Finding little hyperplanes in bigger ones, 35: 11-19 (1981)
- JEAN, KANG C.: See Young, David M.
- JEAN, KANG C. AND YOUNG, DAVID M.: On the simplification of generalized conjugate-gradient methods for nonsymmetrizable linear systems, 52: 399-417 (1983)
- JEFFRIES, CLARK: Qualitative stability of certain nonlinear systems, 75: 133-144 (1986)
- JEFFRIES, CLARK, KLEE, VICTOR, AND VAN DEN DRIESSCHE, PAULINE: Qualitative stability of linear systems, 87: 1-48 (1987)
- JENSEN, PAUL S.: An inclusion theorem related to inverse iteration, 6: 209-215 (1973)
- JETER, M. W. AND PYE, W. C.: A note on nonnegative rank factorizations, 38: 171-173 (1981)
- JETER, MELVYN W.: See Pye, W. C.
- JETER, MELVYN W. AND PYE, WALLACE C.: Nonnegative (s, t) -potent matrices, 45: 109-121 (1982)
- JETER, MELVYN W. AND PYE, WALLACE C.: Some properties of Q -matrices, 57: 169-180 (1984)
- JETER, MELVYN W. AND PYE, WALLACE C.: The linear complementarity problem and a subclass of fully semimonotone matrices, 87: 243-256 (1987)
- JIA, RONG QING: See de Boor, C.
- JIANG, ER XIONG: On spectral variation of a nonnormal matrix, 42: 223-241 (1982)
- JIANG, ER XIONG AND ZHANG, ZHEN YUE: A new shift of the QL algorithm for irreducible symmetric tridiagonal matrices, 65: 261-272 (1985)
- JODAR, LUCAS: Boundary value problems and Cauchy problem for the second-order Euler

- operator differential equation, 91: 1-12 (1987)
- JODAR, LUCAS: Boundary value problems for second-order differential operator equations, 83: 29-38 (1986)
- JOE, HARRY: An ordering of dependence for contingency tables, 70: 89-103 (1985)
- JOHNSEN, E. C.: Essentially doubly stochastic matrices. I. Elements of the theory over arbitrary fields, 4: 255-282 (1971)
- JOHNSEN, E. C.: Essentially doubly stochastic matrices. II. Canonical forms for row equivalence, equivalence, and a special case of congruence, 8: 121-127 (1974)
- JOHNSEN, E. C.: Essentially stochastic matrices — factorizations into elementary and quasi-elementary matrices, 17: 79-93 (1977)
- JOHNSEN, E. C.: Stochastic matrices. I. Similarity via stochastic transforms, 29: 185-193 (1980)
- JOHNSON, C. R.: See DePrima, C. R.
- JOHNSON, CHARLES R.: A local Lyapunov theorem and the stability of sums: Collection of articles dedicated to Olga Taussky Todd, 13: 37-43 (1976)
- JOHNSON, CHARLES R.: An inequality for matrices whose symmetric part is positive definite, 6: 13-18 (1973)
- JOHNSON, CHARLES R.: Closure properties of certain positivity classes of matrices under various algebraic operations, 97: 243-247 (1987)
- JOHNSON, CHARLES R.: D-stability and real and complex quadratic forms, 9: 89-94 (1974)
- JOHNSON, CHARLES R.: Inverse M-matrices, 47: 195-216 (1982)
- JOHNSON, CHARLES R.: Multiplicativity and compatibility of generalized matrix norms, 16: 25-37 (1977)
- JOHNSON, CHARLES R.: Normality and the numerical range, 15: 89-94 (1976)
- JOHNSON, CHARLES R.: Numerical ranges of principal submatrices, 37: 23-34 (1981)
- JOHNSON, CHARLES R.: Power inequalities and spectral dominance of generalized matrix norms, 28: 117-130 (1979)
- JOHNSON, CHARLES R.: Sign patterns of inverse nonnegative matrices, 55: 69-80 (1983)
- JOHNSON, CHARLES R.: See Barrett, Wayne W.
- JOHNSON, CHARLES R.: See Berman, Abraham
- JOHNSON, CHARLES R.: See Fiedler, Miroslav
- JOHNSON, CHARLES R.: See Grone, Robert
- JOHNSON, CHARLES R.: See Hershkovitz, Daniel
- JOHNSON, CHARLES R.: See Hong, Yoo Pyo
- JOHNSON, CHARLES R. AND BARRETT, WAYNE W.: Spanning-tree extensions of the Hadamard-Fischer inequalities, 66: 177-193 (1985)
- JOHNSON, CHARLES R. AND ELSNER, LUDWIG: The relationship between Hadamard and conventional multiplication for positive definite matrices, 92: 231-240 (1987)
- JOHNSON, CHARLES R., KUMAR, RAVINDER, AND WOLKOWICZ, HENRY: Lower bounds for the spread of a matrix, 71: 161-173 (1985)
- JOHNSON, CHARLES R., LEIGHTON, FRANK THOMSON, AND ROBINSON, HERBERT A.: Sign patterns of inverse-positive matrices, 24: 75-83 (1979)
- JOHNSON, CHARLES R., OLESKY, D. D., ROBERTSON, BRIAN, AND VAN DEN DRIESSCHE, P.: Sign determinacy of M-matrix minors, 91: 133-141 (1987)
- JOHNSON, CHARLES R. AND ROBINSON, HERBERT A.: Eigenvalue inequalities for principal submatrices, 37: 11-22 (1981)
- JOHNSON, CHARLES R., UHLIG, FRANK, AND WARNER, DAN: Sign patterns, nonsingularity, and the solvability of $Ax = b$, 47: 1-9 (1982)
- JOHNSON, GREGORY A.: A generalization of N-matrices, 48: 201-217 (1982)
- JOHNSON, GREGORY A.: Inverse N_0 -matrices, 64: 215-222 (1985)
- JOHNSON, GREGORY A.: Partitioned matrices satisfying certain null space properties, 57: 75-85 (1984)
- JOHNSON, JAMES J.: Bounds for certain permanents and determinants, 8: 57-64 (1974)
- JOHNSON, JAMES J.: On partially non-positive matrices, 8: 185-187 (1974)
- JOHNSTON, R. L.: Gerschgorin theorems for partitioned matrices, 4: 205-220. (1971)
- JOHNSTON, R. L. AND OLESKY, D. D.: Best pseudo-isolated Gerschgorin disks for eigenvalues, 10: 55-67 (1975)
- JOLY, J. L.: See Gastinel, N.
- JONCKHEERE, EDMOND A.: New bound on the

- sensitivity of the solution of the Lyapunov equation, 60: 57-64 (1984)
- JONGEN, H. TH., MOSBERT, T., RUCKMANN, J., AND TAMMER, K.: On inertia and Schur complement in optimization, 95: 97-109 (1987)
- JOUBERT, WAYNE D. AND YOUNG, DAVID M.: Necessary and sufficient conditions for the simplification of generalized conjugate-gradient algorithms, 88: 449-485 (1987)
- JOYCE, G. T. AND BARNETT, S.: Remarks on the inertia of a matrix, 3: 1-5 (1970)
- JUNGnickEL, UWE: See Heinig, Georg
- JURY, E. I.: Comments on the stability criterion of Lienard and Chipart, 47: 169-171 (1982)
- JURY, E. I.: See Barnett, S.
- KABE, D. G.: On a multivariate normal probability minimization problem, 67: 103-109 (1985)
- KAGSTROM, BO: See Demmel, James Weldon
- KAHANE, JOSEPH: Grassman algebras for proving a theorem on Pfaffians, 4: 129-136 (1971)
- KAILATH, T.: See Friedlander, B.
- KAILATH, T.: See Coghberg, I.
- KAILATH, T., BRUCKSTEIN, A., AND MORGAN, D.: Fast matrix factorizations via discrete transmission lines, 75: 1-25 (1986)
- KAILATH, T. AND KOLTRACHT, I.: Matrices with block Toeplitz inverses, 75: 145-153 (1986)
- KAILATH, THOMAS: See Bistritz, Yuval
- KAILATH, THOMAS: See Bruckstein, Alfred
- KAILATH, TOM: See Genin, Yves
- KALA, R.: See Baksalary, J. K.
- KAMEN, EDWARD W.: The poles and zeros of a linear time-varying system, 98: 263-289 (1988)
- KAMP, Y.: See Delsarte, P.
- KANEKO, IKUYO: A reduction theorem for the linear complementarity problem with a certain patterned matrix, 21: 13-34 (1978)
- KANEKO, IKUYO: Linear complementarity problems and characterizations of Minkowski matrices, 20: 111-129 (1978)
- KANEKO, IKUYO AND FANG, JONG SHI: Some n by dn linear complementarity problems, 34: 297-319 (1980)
- KANKAANPAA, HILEKA, MERIKOSKI, JORMA KAARLO, AND VIRTANEN, ARI: Improving an inequality for sums of elements of matrix powers, 92: 225-229 (1987)
- KANNAPPAN, PL.: See Chung, J. K.
- KAPLANSKY, IRVING: See Butler, William
- KAPOOR, J.: n -square matrices which, under row permutations, leave the $(n-1)$ th elementary symmetric function invariant, 5: 113-121 (1972)
- KAPOOR, J.: Orthogonal matrices as linear combinations of permutation matrices, 12: 189-196 (1975)
- KARLIN, SAMUEL AND OST, FRIEDEMANN: Some monotonicity properties of Schur powers of matrices and related inequalities, 68: 47-65 (1985)
- KARLIN, SAMUEL AND PINKUS, ALLAN: Oscillation properties of generalized characteristic polynomials for totally positive and positive definite matrices, 8: 281-312 (1974)
- KARLIN, SAMUEL AND RINOTT, YOSEF: M -matrices as covariance matrices of multinormal distributions, 52: 419-438 (1983)
- KASAMI, TADAO AND LIN, SHU: The binary weight distribution of the extended $(2^m, 2^m - 4)$ code of the Reed-Solomon code over $GF(2^m)$ with generator polynomial $(x - \alpha)(x - \alpha^2)(x - \alpha^3)$, 98: 291-307 (1988)
- KASZKUREWICZ, E. AND HSU, L.: On two classes of matrices with positive diagonal solutions to the Lyapunov equation, 59: 19-27 (1984)
- KATO, TOSIO: See Cohen, Joel E.
- KATZ, IRVING J.: Theorems on products of EP matrices. II, 10: 37-40 (1975)
- KATZ, IRVING J.: See Baskett, Thomas S.
- KATZ, IRVING J.: See Bevis, Jean H.
- KATZ, IRVING J.: See Hall, Frank J.
- KATZ, IRVING J.: See Hartwig, Robert E.
- KATZ, IRVING JACK: Remarks on two recent results in matrix theory, 5: 109-112 (1972)
- KATZ, MOSHE: See Friedland, Shmuel
- KAUFMAN, LINDA: The generalized Householder transformation and sparse matrices, 90: 221-234 (1987)
- KAUFMAN, LINDA: See Bunch, James R.
- KAUFMAN, LINDA: See Dongarra, Jack J.
- KAUL, R. N. AND RANI, OMA: A theorem of Fritz John in complex programming, 7: 217-232 (1973)

- KAUSTSKY, J. AND GOLUB, G. H.: On the calculation of Jacobi matrices, 52(53): 439-455 (1983)
- KAYKOBAD, M.: On nonnegative factorization of matrices, 96: 27-33 (1987)
- KAYKOBAD, M.: Positive solutions of a class of linear systems, 72: 97-105 (1985)
- KAYKOBAD, M.: Positive solutions of positive linear systems, 64: 133-140 (1985)
- KEEL, L. H.: See Bhattacharyya, S. P.
- KELLER-McNULTY, S. AND KENNEDY, W. J.: Error-free computation of a reflexive generalized inverse, 67: 157-167 (1985)
- KELLOGG, R. B. AND STEPHENS, A. B.: Complex eigenvalues of a non-negative matrix with a specified graph, 20: 179-187 (1978)
- KELLOGG, R. BRUCE: Matrices similar to a positive or essentially positive matrix, 4: 191-204 (1971)
- KELLY, FRANK P.: See Cohen, Joel E.
- KELLY, L. M. AND WATSON, L. T.: Q-matrices and spherical geometry, 25: 175-189 (1979)
- KEMENY, JOHN G.: Generalization of a fundamental matrix, 38: 193-206 (1981)
- KENNEDY, W. J.: See Keller-McNulty, S.
- KERSHAW, D.: QD algorithms and algebraic eigenvalue problems, 54: 53-75 (1983)
- KERSHAW, D.: An analysis of the method of L. Fox and L. Hayes for the factorization of a polynomial, 86: 179-187 (1987)
- KESSLER, OFRA AND BERMAN, ABRAHAM: Matrices with a transitive graph and inverse M-matrices, 71: 175-185 (1985)
- KESTENBAND, BARBU C.: Finite projective geometries that are incidence structures of caps, 48: 303-313 (1982)
- KEZLAN, T. P.: See Barker, G. P.
- KHARGONEKAR, PRAMOD P., GEORGIU, TRY-PHON T., AND OZGULER, A. BULENT: Skew-prime polynomial matrices: the polynomial-model approach, 50: 403-435 (1983)
- KHARGONEKAR, PRAMOD P. AND OZGULER, A. BULENT: System-theoretic and algebraic aspects of the rings of stable and proper stable rational functions, 66: 123-167 (1985)
- KHARGONEKAR, PRAMOD P. AND POOLLA, KAMESHWAR R.: Polynomial matrix-fraction representations for linear time-varying systems, 80: 1-37 (1986)
- KHATRI, C. G.: A generalization of Lavoie's inequality concerning the sum of idempotent matrices, 54: 97-108 (1983)
- KHATRI, C. G.: A note on idempotent matrices, 70: 185-195 (1985)
- KHATRI, C. G.: Powers of matrices and idempotency, 33: 57-65 (1980)
- KHATRI, C. G. AND SHAH, K. R.: Orthogonality in multiway classifications, 82: 215-224 (1986)
- KIELBASINSKI, ANDRZEJ: A note on rounding-error analysis of Cholesky factorization, 88: 487-494 (1987)
- KIM, JIN BAI: On r -potent linear mappings, 10: 69-70 (1975)
- KIM, JIN BAI: On the number of idempotent linear transformations, 8: 313-325 (1974)
- KIM, K. H.: An extension of the Dulmage-Mendelsohn theorem, 27: 187-197 (1979)
- KIM, K. H. AND ROUSH, F. W.: Expressions for certain minors and permanents, 41: 93-97 (1981)
- KIM, K. H. AND ROUSH, F. W.: Generating all linear transformations, 37: 97-101 (1981)
- KIM, K. H. AND ROUSH, F. W.: The group-theoretic complexity of subsemigroups of Boolean matrices, 25: 289-297 (1979)
- KIM, KI HANG: See Bruning, Jochen
- KIM, KI HANG AND ROUSH, FRED W.: Inverses of Boolean matrices, 22: 247-262 (1978)
- KIM, KI HANG AND ROUSH, FRED W.: On a conjecture of Erdos and Renyi, 23: 179-189 (1979)
- KITTAPPA, R. K.: A generalization of the rotation matrix and related results, 92: 251-258 (1987)
- KLACZYNSKI, K.: See Baksalary, J. K.
- KLEE, VICTOR: Recursive structure of S-matrices and an $O(m^3)$ algorithm for recognizing strong sign solvability, 96: 233-247 (1987)
- KLEE, VICTOR: See Jeffries, Clark
- KLEE, VICTOR, LADNER, RICHARD, AND MANBER, RACHEL: Sign solvability revisited, 59: 131-157 (1984)
- KLEIN, D. J.: Treediagonal matrices and their inverses, 42: 109-117 (1982)
- KLIEM, WOLFHARD: See Pommer, Christian

- KLINGLER, LEE: See Brewer, James
- KLINGLER, LEE AND LEVY, LAWRENCE S.: Sweeping-similarity of matrices, 75: 67-104 (1986)
- KNUPPEL, FRIEDER AND NIELSEN, KLAUS: On products of two involutions in the orthogonal group of a vector space, 94: 209-216 (1987)
- KNUPPEL, FRIEDER AND NIELSEN, KLAUS: Products of involutions in $O^+(V)$, 94: 217-222 (1987)
- KOBILINSKY, A.: See El Mossadeq, A.
- KOBILINSKY, ANDRE: Confounding in relation to duality of finite abelian groups, 70: 321-347 (1985)
- KOECHER, MAX: The generalized inverse of integral matrices, 71: 187-198 (1985)
- KOELLING, D. D.: See Dongarra, J. J.
- KOH, KWANGIL: On the matrix ring over a finite field, 66: 195-197 (1985)
- KOJIMA, M. AND SAIGAL, R.: A property of matrices with positive determinants, 30: 1-8 (1980)
- KOLTRACHT, I.: See Gohberg, I.
- KOLTRACHT, I.: See Kailath, T.
- KOMIYA, HIDETOSHI: Necessary and sufficient conditions for multivariate majorization, 55: 147-154 (1983)
- KONIG, DENES: The life and scientific work of Denes Konig (1884-1944), 21: 189-205 (1978)
- KONIG, HERMANN: Eigenvalues of compact operators with applications to integral operators: Proceedings of the symposium on operator theory (Athens, 1985), 84: 111-122 (1986)
- KORTE, BERNHARD: See Bachem, Achim
- KOŠIR, TOMAŽ: Common Jordan chains of matrices, 99: 253-258 (1988)
- KOSTREVA, MICHAEL M.: Block pivot methods for solving the complementarity problem, 21: 207-215 (1978)
- KOTZIC, ANTON: See Berman, Abraham
- KOVACS, AMOS: Some enumeration problems for matrices over a finite field, 94: 223-236 (1987)
- KOVARIK, Z. V.: Compatibility of approximate solutions of inaccurate linear equations, 15: 217-225 (1976)
- KOVARIK, Z. V.: Minimal compatible solutions of linear equations, 17: 95-106 (1977)
- KOVARIK, Z. V.: Spectrum localization in Banach spaces. I, 8: 225-236 (1974)
- KOVARIK, Z. V.: Spectrum localization in Banach spaces. II, 12: 223-229 (1975)
- KOVARIK, Z. V. AND OLESKY, D. D.: Sharpness of generalized Gerschgorin disks, 8: 477-482 (1974)
- KOVARIK, ZDISLAV V.: Manifolds of frames of projectors, 31: 151-158 (1980)
- KOVARIK, ZDISLAV V.: Manifolds of linear involutions, 24: 271-287 (1979)
- KOVARIK, ZDISLAV V. AND SHERIF, NAGWA: Characterization of similarities between two n -frames of projectors, 57: 57-69 (1984)
- KOVARIK, ZDISLAV V. AND SHERIF, NAGWA: Geodesics and near-geodesics in the manifolds of projector frames, 99: 259-277 (1988)
- KOVARIK, ZDISLAV V. AND SHERIF, NAGWA: Perturbation of invariant subspaces, 64: 93-113 (1985)
- KRAFFT, OLAF: A matrix optimization problem, 51: 137-142 (1983)
- KRAMARZ, LUIS: Algebraic perturbation methods for the solution of singular linear systems, 36: 79-88 (1981)
- KRANZER, HERBERT C.: See Gorelick, Michael R.
- KRAUSE, U.: See Hinrichsen, D.
- KRAUSE, ULRICH: See Fujimoto, Takao
- KRAUTER, ARNOLD R.: On the greatest distance between two permanent roots of a matrix, 93: 39-55 (1987)
- KRAVVARITIS, DIMITRIOS AND STAVRAKAKIS, NICOLAOS: Perturbations of maximal monotone random operators: Proceedings of the symposium on operator theory (Athens, 1985), 84: 301-310 (1986)
- KRESS, RAINER, DE VRIES, HANS LUDWIG, AND WEGMANN, RUDOLF: On nonnormal matrices, 8: 109-120 (1974)
- KRISHNA, LALA B.: On the convergence of the symmetric successive overrelaxation method, 50: 185-194 (1984)
- KRUSKAL, JOSEPH B.: Three-way arrays: rank and uniqueness of trilinear decompositions, with application to arithmetic complexity and statistics, 18: 95-138 (1977)

- KUHN, DIETER AND LOWEN, RAINER: Piecewise affine bijections of \mathbb{R}^n , and the equation $Sx^+ - Tx^- = y$, 96: 109-129 (1987)
- KUMAR, RAVINDER: See Johnson, Charles R.
- KUMAR, VIJAYA, RAO, S. B., AND SINGHI, N. M.: Graphs with eigenvalues at least -2, 46: 27-42 (1982)
- KUNG, JOSEPH P. S.: The cycle structure of a linear transformation over a finite field, 36: 141-155 (1981)
- KUO, I WEN: A note on factorizations of singular M-matrices, 16: 217-220 (1977)
- KUO, I WEN: The Moore-Penrose inverses of singular M-matrices, 17: 1-14 (1977)
- KUO, YUEH ER: Some properties of tensor products of matrices, 7: 63-70 (1973)
- KUO, YUEH-ER: Some extensions of the elementary divisor theorem of linear algebra, 2: 57-64 (1969)
- KWAK, EDWARD K.: See Jain, S. K.
- KWONG, MAN KAM: Conditions under which the order of two non-negative Hermitian matrices is preserved when taking integral powers, 18: 223-228 (1977)
- KWONG, MAN KAM: See Bapat, R. B.
- LADNER, RICHARD: See Klee, Victor
- LAFFEY, T. J.: See Deutsch, E.
- LAFFEY, T. J.: See Gaines, F. J.
- LAFFEY, T. J.: See Gow, R.
- LAFFEY, THOMAS J.: A counterexample to Kippenhahn's conjecture on Hermitian pencils, 51: 179-182 (1983)
- LAFFEY, THOMAS J.: A criterion for generating full matrix algebras, 37: 191-198 (1981)
- LAFFEY, THOMAS J.: A normality criterion for an algebra of matrices, 25: 169-174 (1979)
- LAFFEY, THOMAS J.: A note on matrix subalgebras containing a full Jordan block, 37: 187-189 (1981)
- LAFFEY, THOMAS J.: Algebras generated by two idempotents, 37: 45-53 (1981)
- LAFFEY, THOMAS J.: Irredundant generating sets for matrix algebras, 52: 457-478 (1983)
- LAFFEY, THOMAS J.: Simultaneous quasidiagonalization of complex matrices, 16: 189-201 (1977)
- LAFFEY, THOMAS J.: Simultaneous reduction of sets of matrices under similarity: Proceedings of the symposium on operator theory (Athens, 1985), 84: 123-138 (1986)
- LAFFEY, THOMAS J.: Simultaneous triangularization of a pair of matrices whose commutator has rank two, 29: 195-203 (1980)
- LAFFEY, THOMAS J.: The minimal dimension of maximal commutative subalgebras of full matrix algebras, 71: 199-212 (1985)
- LAFFEY, THOMAS J.: See Aupetit, Bernard
- LAFFEY, THOMAS J.: See Gaines, Fergus J.
- LAFFEY, THOMAS J.: See Hannah, John
- LAFFEY, THOMAS J. AND MCQUILLAN, DONALD L.: A note on subfields of matrix rings, 16: 1-3 (1977)
- LAFON, JEAN-CLAUDE: Optimum computation of p bilinear forms, 10: 225-240 (1975)
- LAM, CLEMENT W. H.: See Seberry, Jennifer
- LAM, CLEMENT WING HONG: On rational circulants satisfying $A^2 = dI + \lambda J$, 12: 139-150 (1975)
- LANCASTER, P.: See Gohberg, I.
- LANCASTER, P., LERER, L., AND TISENETSKY, M.: Factored forms for solutions of $AX - XB = C$ and $X - AXB = C$ in companion matrices, 62: 19-49 (1984)
- LANCASTER, P. AND MAROULAS, J.: Selective perturbation of spectral properties of vibrating systems using feedback, 98: 309-330 (1988)
- LANCASTER, P. AND PATTABHIRAMAN, M. V.: The local determination of Jordan bases for H-selfadjoint operators, 48: 191-199 (1982)
- LANCASTER, P. AND TISENETSKY, M.: Inertia characteristics of selfadjoint matrix polynomials, 52: 479-496 (1983)
- LANCASTER, P. AND WEBBER, P. N.: Jordan chains for λ -matrices, 1: 563-569 (1968)
- LANCASTER, PETER: A fundamental theorem on λ -matrices with applications. I. Ordinary differential equations with constant coefficients, 18: 189-211 (1977)
- LANCASTER, PETER: A fundamental theorem on λ -matrices with applications. II. Difference equations with constant coefficients, 18: 213-222 (1977)
- LANCASTER, PETER: Common eigenvalues, divisors, and multiples of matrix polynomials: a review: Proceedings of the symposium on operator theory (Athens, 1985), 84: 139-160 (1986)

- LANDAU, H. J. AND ODLYZKO, A. M.: Bounds for eigenvalues of certain stochastic matrices, 38: 5-15 (1981)
- LANDIS, T. L.: See Parlett, B. N.
- LANGENBERG, PATRICIA: See Hsuan, Francis
- LANGENHOP, C. E.: A row reduction of λ -matrices, 9: 185-198 (1974)
- LANGENHOP, C. E.: The Laurent expansion for a nearly singular matrix, 4: 329-340 (1971)
- LANGENHOP, C. E.: The inverse of a matrix polynomial, 16: 267-284 (1977)
- LANGENHOP, CARL E.: On the invertibility of a nearly singular matrix, 7: 361-365 (1973)
- LANGER, HEINZ AND NAJMAN, BRANKO: Some interlacing results for indefinite Hermitian matrices, 69: 131-154 (1985)
- LANSKI, CHARLES: See Guralnick, Robert
- LARATTA, A.: See Arioli, M.
- LARSON, LOREN C.: See Coxson, Pamela G.
- LASZLO, L.: Matrix methods for polynomials, 36: 129-131 (1981)
- LASZLO, LAJOS: A bandstructure-invariant deflation for real symmetric matrices, 33: 9-13 (1980)
- LASZLO, LAJOS: Imaginary part bounds on polynomial zeros, 44: 173-180 (1982)
- LAU, CONY M. AND MARKHAM, THOMAS L.: Factorization of nonnegative matrices. II, 20: 51-56 (1978)
- LAU, K. K. AND RIHA, W. O. J.: Characterization of best approximations in normed linear spaces of matrices by elements of finite-dimensional linear subspaces, 35: 109-120 (1981)
- LAUCHLI, PETER: Algebraic reduction of electrical multiterminal networks, 1: 537-561 (1968)
- LAVOIE, J.-L.: A determinantal inequality involving the Moore-Penrose inverse, 31: 77-80 (1980)
- LAWRENCE, JIM: Oriented matroids and multiply ordered sets, 48: 1-12 (1982)
- LAWRENCE, JIM AND WEINBERG, LOUIS: Unions of oriented matroids, 41: 183-200 (1981)
- LAWSON, J. D.: See Freedman, H. I.
- LAWSON, LINDA MARIE: Computational methods for generalized inverse matrices arising from proper splittings, 12: 111-126 (1975)
- LAX, ANNELI AND LAX, PETER D.: On sums of squares, 20: 71-75 (1978)
- LAX, PETER D.: See Lax, Anneli
- LAY, D. C.: See Ben-Artzi, A.
- LAY, DAVID: See Ellis, Robert L.
- LAYTON, W. AND MORLEY, T. D.: On central difference approximations to general second order elliptic equations, 97: 65-75 (1987)
- LEDERMANN, WALTER: The mathematical work of Walter Ledermann, 69: iii, 1-8 (1985)
- LEE, ANNA: Centro-Hermitian and skew-centro-Hermitian matrices, 29: 205-210 (1980)
- LEE, GEOFFREY M.: See Brualdi, Richard A.
- LEE, JOHN W.: See Anselone, Philip M.
- LEE, S. L.: B-splines for cardinal Hermite interpolation, 12: 269-280 (1975)
- LEFEVRE-PERCSY, CHRISTIANE: Geometries with dual affine planes and symplectic quadrics, 42: 31-37 (1982)
- LEHNICK, SIEGFRIED H.: On the Hermite matrix of a polynomial, 4: 407-419 (1971)
- LEIGHTON, FRANK THOMSON: See Johnson, Charles R.
- LEITMAN, M. J.: On the spectra of a family of positive matrices, 37: 251-258 (1981)
- LEMKE, C. E.: See Cottle, R. W.
- LEMPER, ABRAHAM: Characterization and synthesis of self-complementary normal bases in finite fields, 98: 331-346 (1988)
- LENT, A.: See Eggermont, P. P. B.
- LERER, L.: See Gohberg, I.
- LERER, L.: See Lancaster, P.
- LERER, L. AND TISMENETSKY, M.: Generalized Bezoutian and matrix equations, 99: 123-160 (1988)
- LERON, URI: Matrix methods in decompositions of modules, 31: 159-171 (1980)
- LEUNG, PUI LAM: See Muirhead, Robb J.
- LEUZE, MICHAEL R.: Parallel triangularization of substructured finite element problems: Special volume on parallel computing, 77: 241-258 (1986)
- LEVINE, JACK: See Brawley, J. V.
- LEVINGER, B. W.: Minimal Gerschgorin sets. III, 2: 13-19 (1969)
- LEVINGER, BERNARD W.: A generalization of the Camion-Hoffman theorem, 5: 227-232 (1972)

- LEVOW, ROY B.: A problem of Mirsky concerning nonsingular doubly stochastic matrices, 5: 197-206 (1972)
- LEVY, LAWRENCE S.: See Klingler, Lee
- LEWIN, MORDECHAI: See Brualdi, Richard A.
- LEWIN, MORDECHAI AND NEUMANN, MICHAEL: On the inverse M -matrix problem for $(0,1)$ -matrices, 30: 41-50 (1980)
- LEWIS, D. W.: A determinantal identity for skewfields, 71: 213-217 (1985)
- LEWIS, D. W.: The isometry classification of Hermitian forms over division algebras, 43: 245-272 (1982)
- LEWIS, JOHN W.: See Eisenstat, Stanley C.
- LEWIS, T. O.: See Pavur, R. J.
- LI, CHI KWONG: A generalization of spectral radius, numerical radius, and spectral norm, 90: 105-118 (1987)
- LI, CHI KWONG: On the higher numerical radius and spectral norm, 80: 55-70 (1986)
- LI, CHI KWONG: The decomposable numerical radius and numerical radius of a compound matrix, 76: 45-58 (1986)
- LI, HORNG JAAN: See Cheng, Sui-Sun
- LI, QIAO: See Brualdi, Richard A.
- LI, QIAO: See Shao, Jia Yu
- LI, T.-Y. AND SAUER, T.: Homotopy method for generalized eigenvalue problems $Ax = \lambda Bx$, 91: 65-74 (1987)
- LICKTEIG, THOMAS: Typical tensorial rank, 69: 95-120 (1985)
- LIDL, R.: See James, N. S.
- LIEBLER, R. A.: See Cameron, P. J.
- LIM, M. H.: See Chan, C. H.
- LIM, M. H. AND ONG, HOCK: Linear transformations on symmetric matrices that preserve the permanent, 21: 143-151 (1978)
- LIM, MING HUAT: See Chan, Gin-Hor
- LIMA, RICARDO: See Bellissard, Jean
- LIMEBEER, D. J. N. AND ANDERSON, B. D. O.: An interpolation theory approach to H^∞ controller degree bounds, 98: 347-386 (1988)
- LIN, SHU: See Kasami, Tadao
- LIN, WEN WEI: A new method for computing the closed-loop eigenvalues of a discrete-time algebraic Riccati equation, 96: 157-180 (1987)
- LIN, WEN-WEI: An algorithm for computing the eigenstructure of a regular matrix polynomial, 91: 195-211 (1987)
- LIN, WEN-WEI: On reducing infinite eigenvalues of regular pencils by a nonequivalence transformation, 78: 207-231 (1986)
- LINDQUIST, ANDERS: See Gragg, William B.
- LINDQVIST, BO HENRY: Nonnegative multiplicative processes reaching stationarity in finite time, 86: 75-90 (1987)
- LIPITAKIS, ELIAS A.: Approximate root-free factorization techniques for solving elliptic difference equations in three space variables, 76: 247-269 (1986)
- LIPMAN, MARC J.: The linear index of a group representation, 31: 43-54 (1980)
- LIPOW, PETER R. AND SCHOENBERG, I. J.: Cardinal interpolation and spline functions. III. Cardinal Hermite interpolation, 6: 273-304 (1973)
- LIU, JOSEPH: See George, Alan
- LIU, JOSEPH W. H.: See George, Alan
- LJUNG, L.: See Friedlander, B.
- LLOYD, S.: See Atkinson, M. D.
- LOEBL, RICHARD I. AND PAULSEN, VERN I.: Some remarks on C^* -convexity, 35: 63-78 (1981)
- LOEWY, R.: Determinants of nonprincipal submatrices of positive semidefinite matrices, 56: 1-16 (1984)
- LOEWY, R.: See Hartfiel, D. J.
- LOEWY, RAPHAEL: Determinants of nonprincipal submatrices of normal matrices, 52: 497-507 (1983)
- LOEWY, RAPHAEL: On a theorem about the location of eigenvalues of matrices, 4: 233-242 (1971)
- LOEWY, RAPHAEL: On ranges of real Lyapunov transformations: Collection of articles dedicated to Olga Taussky Todd, 13: 79-89 (1976)
- LOEWY, RAPHAEL: Principal minors and diagonal similarity of matrices, 78: 23-64 (1986)
- LOEWY, RAPHAEL: Quadratic forms on completely symmetric spaces, 29: 211-216 (1980)
- LOEWY, RAPHAEL: See Barker, George Phillip
- LOEWY, RAPHAEL: See Carlson, David
- LOEWY, RAPHAEL AND SCHNEIDER, HANS: Indecomposable cones, 11: 235-245 (1975)

- LOEWY, RAPHAEL AND TAM, BIT SHUN: Complementation in the face lattice of a proper cone, 79: 195-207 (1986)
- LOGAN, J. DAVID: See Curtis, W. D.
- LOIZOU, G.: See Fenner, T. I.
- LONDON, DAVID: Monotonicity of permanents of certain doubly stochastic circulant matrices, 37: 235-249 (1981)
- LONDON, DAVID: On the van der Waerden conjecture and zeros of polynomials, 45: 35-41 (1982)
- LONDON, DAVID: Some notes on the van der Waerden conjecture, 4: 155-160 (1971)
- LONG, ANDREW F. AND VAUGHAN, THERESA P.: Factorization of $Q(h(T)(x))$ over a finite field where $Q(x)$ is irreducible and $h(T)(x)$ is linear. I, 13: 207-221 (1976)
- LONG, ANDREW F., JR. AND VAUGHAN, THERESA P.: Factorization of $Q(h(T)(x))$ over a finite field, where $Q(x)$ is irreducible and $h(T)(x)$ is linear. II, 11: 53-72 (1975)
- LONG, J. P. AND CULLEN, C. G.: Intrinsic functions on complex semisimple algebras, 3: 429-440 (1970)
- LONG, J. P. AND CULLEN, C. G.: Intrinsic functions on real semisimple algebras, 9: 199-208 (1974)
- LONGSINE, D. E. AND MCCORMICK, S. F.: Simultaneous Rayleigh-quotient minimization methods for $Ax = \lambda Bx$, 34: 195-234 (1980)
- LONGSTAFF, W. E.: On the operation Alg Lat in finite dimensions, 27: 27-29 (1979)
- LONGSTAFF, W. E.: Picturing the lattice of invariant subspaces of a nilpotent complex matrix, 56: 161-168 (1984)
- LONGSTAFF, W. E.: See Fillmore, P. A.
- LORENZ, JENS: Resonance in equations with a diagonal field, 38: 103-107 (1981)
- LORENZ, JENS AND MACKENS, WOLFGANG: Toeplitz matrices with totally nonnegative inverses, 24: 133-141 (1979)
- LOU, SHELDON X.-C., VERGHESE, GEORGE C., WILLSKY, ALAN S., AND COXSON, PAMELA G.: Conditions for scale-based decompositions in singularly perturbed systems, 98: 387-413 (1988)
- LOUGHLIN, TIMOTHY A. AND SLEPIAN, PAUL: Minimal paramount matrices, 15: 197-204 (1976)
- LOVASS-NAGY, V., POWERS, D. L., AND ULLMAN, F. D.: A modified ADI method for computing the "best least-squares solution" of an incompatible system $(A \times I + I \times B)x = g$, 7: 179-185 (1973)
- LOVASS-NAGY, V. AND POWERS, D. L.: A note on block diagonalization of some partitioned matrices, 5: 339-346 (1972)
- LOVASS-NAGY, V. AND POWERS, D. L.: On the commuting reciprocal inverse of some partitioned mces, 4: 183-190 (1971)
- LOVASS-NAGY, VICTOR AND POWERS, DAVID L.: On functions of partitioned matrices with nondiagonalizable submatrices, 3: 257-262 (1970)
- LOWEN, RAINER: See Kuhn, Dieter
- LOZINSKIY, S. M.: On an estimate of the spectral radius and spectral abscissa of a matrix, 2: 117-125 (1969)
- LU, TZON TZER: See Cheng, Sui Sun
- LUBACHEVSKY, BORIS D.: The structure of the inverse to the Sylvester resultant matrix, 85: 191-202 (1987)
- LUNENBERGER, DAVID G.: See Yamada, Takeo
- LUX, FRANKLIN T.: A triangular processor array for computing singular values: Special volume on parallel computing, 77: 259-273 (1986)
- LUX, FRANKLIN T.: The communality problem for Stieltjes matrices, 38: 161-169 (1981)
- LUX, FRANKLIN T. AND PAGANO, MARCELLO: Quadratic programming with M-matrices, 33: 15-40 (1980)
- LUX, FRANKLIN T. AND QIAO, SA-J ZHENG: A fast but unstable orthogonal triangularization technique for Toeplitz matrices, 88: 495-506 (1987)
- LULEK, T.: See Mucha, M.
- LUTWAK, ERWIN: On power means of positive quadratic forms, 57: 13-19 (1984)
- LUTZ, D. A. AND SCHAFKE, R.: On the identification and stability of formal invariants for singular differential equations, 72: 1-46 (1985)
- LYLE, BILL: A linear-algebra problem from algebraic coding theory, 22: 223-233 (1978)
- LYNN, M. STUART AND TIMLAKE, WILLIAM P.: Bounds for Perron eigenvectors and subdominant eigenvalues of positive matrices, 2: 143-152 (1969)

- MA, S. L.: On multipliers of polynomial addition sets, 69: 231-238 (1985)
- MA, S. L.: On rational circulants satisfying $A^m = dI + \lambda J$, 62: 155-161 (1984)
- MA, S. L.: Polynomial addition sets and polynomial digraphs, 69: 213-230 (1985)
- MA, S. L. AND WATERHOUSE, WILLIAM C.: The g -circulant solutions of $A^m = \lambda J$, 85: 211-220 (1987)
- MACK, ANGELA: See Zellini, Paolo
- MACKENS, WOLFGANG: See Lorenz, Jens
- MADSEN, NIEL K.: Cyclic odd-even reduction for symmetric circulant matrices, 51: 17-35 (1983)
- MAGAGNA, L.: See Horne, G. J.
- MAGNUS, JAN R.: A representation theorem for $(\text{tr } A^p)^{1/p}$, 95: 127-134 (1987)
- MAGURN, B. A.: See Vaserstein, L. N.
- MAJINDAR, K. N.: Linear combinations of Hermitian and real symmetric matrices, 25: 95-105 (1979)
- MAK, T. K.: See Chan, N. N.
- MALEK, MASSOUD: On monotonic and orthant monotonic norms, 56: 169-175 (1984)
- MALEK-SHAHMIRZADI, MASSOUD: Application of Neumann's lemma to the minimum and characteristic polynomials, 29: 217-224 (1980)
- MALEK-SHAHMIRZADI, MASSOUD: On a conjecture by D. Zh. Djokovic, 30: 177-182 (1980)
- MALZAN, JERRY: See Djokovic, Dragomir Zh.
- MANBER, RACHEL: Graph-theoretical approach to qualitative solvability of linear systems, 48: 457-470 (1982)
- MANBER, RACHEL: See Klee, Victor
- MANDEL, JAN: A convergence analysis of the iterative aggregation method with one parameter, 59: 159-169 (1984)
- MANDEL, JAN AND SEKERKA, BOHUSLAV: A local convergence proof for the iterative aggregation method, 51: 163-172 (1983)
- MANGASARIAN, O. L.: A stable theorem of the alternative: an extension of the Gordan theorem, 41: 209-223 (1981)
- MANGASARIAN, O. L.: Monotone splitting of matrices, 8: 43-55 (1974)
- MANGASARIAN, O. L.: Uniqueness of solution in linear programming, 25: 151-162 (1979)
- MANGASARIAN, O. L.: See Han, S. P.
- MARCHI, EZIO AND TARAZAGA, PABLO: About (k, n) stochastic matrices, 26: 15-30 (1979)
- MARCUS, MARVIN: Rearrangement and extremal results for Hermitian matrices, 11: 95-104 (1975)
- MARCUS, MARVIN: Variations on the Cauchy-Schwarz inequality, 27: 81-91 (1979)
- MARCUS, MARVIN AND ANDRESEN, PATRICIA: The numerical radius of exterior powers, 16: 131-151 (1977)
- MARCUS, MARVIN AND FILIPPENKO, IVAN: Non-differentiable boundary points of higher numerical range, 21: 217-232 (1978)
- MARCUS, MARVIN AND GORDON, WILLIAM ROBERT: A generalization of the unitary group, 3: 225-247 (1970)
- MARCUS, MARVIN AND HOOVER, DEAN W.: Normal and Hermitian tensor products, 9: 1-8 (1974)
- MARCUS, MARVIN AND MERRIS, RUSSELL: Antiderivations on the exterior and symmetric algebras, 5: 13-18 (1972)
- MARCUS, MARVIN AND MINC, HENRYK: An inequality for Schur functions, 5: 19-28 (1972)
- MARCUS, MARVIN AND MINC, HENRYK: Extensions of classical matrix inequalities, 1: 421-444 (1968)
- MARCUS, MARVIN AND MOORE, KENNETH: A determinant formulation of the Cauchy-Schwarz inequality, 36: 111-127 (1981)
- MARCUS, MARVIN AND MOORE, KENNETH: A subdeterminant inequality for normal matrices, 31: 129-143 (1980)
- MARCUS, MARVIN AND NEWMAN, MORRIS: Some results on unitary matrix groups, 3: 173-178 (1970)
- MARCUS, MARVIN AND PIERCE, STEPHEN: Elementary divisors of associated transformations, 2: 21-35 (1969)
- MARCUS, MARVIN AND PIERCE, STEPHEN: Extensions of the Minkowski inequality, 1: 13-27 (1968)
- MARCUS, MARVIN AND ROBINSON, HERBERT: A note on the Hodge star operator, 10: 85-87 (1975)
- MARCUS, MARVIN AND ROBINSON, HERBERT: On exterior powers of endomorphisms, 14: 219-225 (1976)
- MARCUS, MARVIN AND SANDY, MARKUS: Conditions for the generalized numerical range to be real, 71: 219-239 (1985)

- MAREK, IVO: Pertin roots of a convex combination of a cone preserving map and its adjoint, 58: 185-200 (1984)
- MAREK, IVO AND ZITNY, KAREL: Two-sided spectral bounds of two irreducible linear maps, 52: 509-523 (1983)
- MARKHAM, T. L.: See Fiedler, M.
- MARKHAM, T. L.: See Hung, Ching Hsiang
- MARKHAM, T. L., NEUMANN, M., AND PLEMMONS, R. J.: Convergence of a direct-iterative method for large-scale least-squares problems, 69: 155-167 (1985)
- MARKHAM, THOMAS L.: A semigroup of totally nonnegative matrices, 3: 157-164 (1970)
- MARKHAM, THOMAS L.: Class G, and a unification problem, 39: 197-204 (1981)
- MARKHAM, THOMAS L.: On oscillatory matrices, 3: 143-156 (1970)
- MARKHAM, THOMAS L.: Two properties of M-matrices, 28: 131-134 (1979)
- MARKHAM, THOMAS L.: See Carlson, David
- MARKHAM, THOMAS L.: See Fiedler, Miroslav
- MARKHAM, THOMAS L.: See Hudson, Richard H.
- MARKHAM, THOMAS L.: See Lau, Cony M.
- MARKIEWICZ, AUGUSTYN: See Baksalary, Jerzy K.
- MARKUS, A. S. AND PARILIS, E. E.: The change of the Jordan structure of a matrix under small perturbations: Translated from the Russian by Chandler Davis, 54: 139-152 (1983)
- MAROULAS, J.: A theorem on the factorization of matrix polynomials: Proceedings of the symposium on operator theory (Athens, 1985), 84: 311-322 (1986)
- MAROULAS, J.: Factorization of matrix polynomials with multiple roots, 69: 9-32 (1985)
- MAROULAS, J.: See Lancaster, P.
- MAROULAS, JOHN AND BARNETT, STEPHEN: Greatest common divisor of generalized polynomial and polynomial matrices, 22: 195-210 (1978)
- MARQUES DE SA, E.: Imbedding conditions for λ -matrices, 24: 33-50 (1979)
- MARQUES DE SA, E.: On the existence of matrices with constrained elements, rows and columns, 24: 263-270 (1979)
- MARQUES DE SA, E.: On the inertia of sums of Hermitian matrices, 37: 143-159 (1981)
- MARQUES DE SA, E.: See Cain, Bryan E.
- MARSAGLIA, GEORGE AND TSAY, LIANG-HUEI: Matrices and the structure of random number sequences, 67: 147-156 (1985)
- MARSHALL, ALBERT W. AND OLKIN, INGRAM: Norms and inequalities for condition numbers. II, 2: 167-172 (1969)
- MARSHALL, ALBERT W. AND OLKIN, INGRAM: Norms and inequalities for condition numbers. III, 7: 291-300 (1973)
- MARTIGNON, L. F.: Doubly stochastic matrices with prescribed positive spectrum, 61: 11-13 (1984)
- MARTIN, D. H.: Finite criteria for conditional definiteness of quadratic forms, 39: 9-21 (1981)
- MARTIN, D. H. AND JACOBSON, D. H.: Copositive matrices and definiteness of quadratic forms subject to homogeneous linear inequality constraints, 35: 227-258 (1981)
- MARTIN, D. H., POWELL, M. J. D., AND JACOBSON, D. H.: On a decomposition of conditionally positive-semidefinite matrices, 39: 51-59 (1981)
- MARTINEZ-LEGAS, JUAN-ENRIQUE AND SINGER, IVAN: Lexicographical separation in R^n , 90: 147-163 (1987)
- MARTINS, M. MADALENA: On the convergence of the modified overrelaxation method, 81: 55-73 (1986)
- MASSER, D. W. AND NEUMANN, M.: On the square roots of strictly quasi-accretive complex matrices, 28: 135-140 (1979)
- MATHAR, RUDOLF: The best Euclidian fit to a given distance matrix in prescribed dimensions, 67: 1-6 (1985)
- MATHEW, THOMAS: Hermitian and nonnegativity preserving subspaces, 82: 225-235 (1986)
- MATTHEIJ, R. M. M.: Accurate estimates of solutions of second order recursions, 12: 29-54 (1975)
- MATTHEIJ, R. M. M. AND SMOOKE, M. D.: Estimates for the inverse of tridiagonal matrices arising in boundary value problems, 73: 33-57 (1986)
- MATTHEIJ, R. M. M. AND SODERLIND, G.: On inhomogeneous eigenvalue problems. I, 88: 507-531 (1987)
- MATTIS, MICHAEL P. AND HOCHSTADT, HARRY: On the construction of band matrices from spectral data, 38: 109-119 (1981)

- MAURER, STEPHEN B.: A maximum-rank minimum-term-rank theorem for matroids, 10: 129-137 (1975)
- MAXWELL, GEORGE: On double commutators, 4: 283-284 (1971)
- MAYBEE, JOHN S.: Combinatorially symmetric matrices, 8: 529-537 (1974)
- MAYER, GUNTER: On the asymptotic convergence factor of the total step method in interval computation, 85: 153-164 (1987)
- MAYER, GUNTER: On the convergence of powers of interval matrices, 58: 201-216 (1984)
- MAYER, GUNTER: On the convergence of the Neumann series in interval analysis, 65: 63-70 (1985)
- MCCALLISTER, D. F., STEWART, G. W., AND STEWART, W. J.: On a Rayleigh-Ritz refinement technique for nearly uncoupled stochastic matrices, 60: 1-25 (1984)
- MCASEY, MICHAEL J. AND MUHLY, PAUL S.: On projective equivalence of invariant subspace lattices, 43: 167-179 (1982)
- MCCONNELL, ROBERT M.: See Beard, Jacob T. B., Jr.
- MCCONNELL, ROBERT M.: See Cline, Randall E.
- MCCORMICK, S. F.: See Longsine, D. E.
- MCCORMICK, S. F. AND NOE, T.: Simultaneous iteration for the matrix eigenvalue problem, 16: 43-56 (1977)
- MCDONALD, B. R.: Similarity of matrices over Artinian principal ideal rings, 21: 153-162 (1978)
- MCDONALD, JOHN N.: On some zero configurations associated with the van der Waerden conjecture, 32: 137-155 (1980)
- MCENTEGGERT, P.: See Thompson, R. C.
- McFALL, J. D.: On elementary divisors of the tensor product of two matrices, 33: 67-86 (1980)
- McINTOSH, ALAN: See Bhatia, Rajendra
- McKAY, B. D.: See Godsil, C. D.
- McKAY, BRENDAN D.: The expected eigenvalue distribution of a large regular graph, 40: 203-216 (1981)
- McKAY, JAMES H. AND WANG, STUART SUI SHENG: On a theorem of Brualdi and Newman, 92: 39-43 (1987)
- McMATH, JOHN S., SIMS, S. E., AND HALLUM, C. R.: On the properties of a matrix valued derivative utilizing the Moore-Penrose inverse, 18: 281-291 (1977)
- McQUILLAN, DONALD L.: See Laffey, Thomas J.
- MEEK, D. S.: A new class of matrices with positive inverses, 15: 253-260 (1976)
- MEEK, D. S.: Comparison of infinity norms of matrix inverses, 96: 149-156 (1987)
- MEEK, D. S.: The inverses of Toeplitz band matrices, 49: 117-129 (1983)
- MEEK, D. S.: See Hoskins, W. D.
- MEES, A. I. AND ATHERTON, D. P.: Domains containing the field of values of a matrix, 26: 289-296 (1979)
- MEHRMANN, VOLKER: On a generalized Fan inequality, 58: 235-245 (1984)
- MEHRMANN, VOLKER: On classes of matrices containing M -matrices and Hermitian positive semidefinite matrices, 58: 217-234 (1984)
- MEHRMANN, VOLKER: On the LU decomposition of V -matrices, 61: 175-186 (1984)
- MEHRMANN, VOLKER: See Hershkowitz, Daniel
- MEINARDUS, G.: See Hader, K. P.
- MELIKMAN, A. A.: See Friedland, S.
- MELTER, ROBERT A. AND RUDEANU, SERGIU: Linear equations and interpolation in Boolean algebra, 57: 31-40 (1984)
- MENA, R. A.: On discriminant-like polynomials, 75: 193-201 (1986)
- MENA, R. A.: See Bridges, W. G.
- MENDELSON, N. S.: An application of matrix theory to a problem in universal algebra, 1: 471-478 (1968)
- MENON, M. V. AND SCHNEIDER, HANS: The spectrum of a nonlinear operator associated with a matrix, 2: 321-334 (1969)
- MERIKOSKI, JORMA KAARLO: On operator norms of submatrices, 36: 173-183 (1981)
- MERIKOSKI, JORMA KAARLO: On the trace and the sum of elements of a matrix, 60: 177-185 (1984)
- MERIKOSKI, JORMA KAARLO: See Kankaanpää, Hilka
- MERIKOSKI, JORMA KAARLO, STYAN, GEORGE P. H., AND WOLKOWICZ, HENRY: Bounds for ratios of eigenvalues using traces, 55: 105-124 (1983)
- MERIKOSKI, JORMA KAARLO AND WOLKOWICZ,

- HENRY: Improving eigenvalue bounds using extra bounds, 68: 93-113 (1985)
- MERRIS, RUSSELL: A generalization of the associated transformation, 4: 393-406 (1971)
- MERRIS, RUSSELL: Applications of spherical functions in multilinear algebra, 20: 77-86 (1978)
- MERRIS, RUSSELL: Induced bases of symmetry classes of tensors, 39: 103-110 (1981)
- MERRIS, RUSSELL: Manifestations of Polya's counting theorem, 32: 209-232 (1980)
- MERRIS, RUSSELL: Nonzero decomposable symmetrized tensors, 17: 287-292 (1977)
- MERRIS, RUSSELL: Pattern inventories associated with symmetry classes of tensors, 29: 225-230 (1980)
- MERRIS, RUSSELL: Two problems involving Schur functions, 10: 155-162 (1975)
- MERRIS, RUSSELL: See Fiedler, Miroslav
- MERRIS, RUSSELL: See Grone, Robert
- MERRIS, RUSSELL: See Ishaq, M.
- MERRIS, RUSSELL: See Marcus, Marvin
- MERRIS, RUSSELL, REDMAN, KENNETH R., AND WATKINS, WILLIAM: Permanent polynomials of graphs, 38: 273-288 (1981)
- MERRIS, RUSSELL AND WATKINS, WILLIAM: An invariant theory approach to graph enumeration, 61: 277-285 (1984)
- MERRIS, RUSSELL AND WATKINS, WILLIAM: Elementary divisors of induced transformations on symmetry classes of tensors, 38: 17-26 (1981)
- MERRIS, RUSSELL AND WATKINS, WILLIAM: Inequalities and identities for generalized matrix functions, 64: 223-242 (1985)
- METELMANN, KURT: Ein Kriterium für den Nachweis der Totalnichtnegativität von Bandmatrizen, 7: 163-171 (1973)
- MEYER, C. D., JR.: See Funderlic, R. E.
- MEYER, C. D., JR. AND STADELMAIER, M. W.: Singular M-matrices and inverse positivity, 22: 139-156 (1978)
- MEYER, CARL D., JR.: An alternative expression for the mean first passage matrix, 22: 41-47 (1978)
- MEYER, CARL D., JR.: Representations for (1)- and (1,2)-inverses for partitioned matrices, 4: 221-232 (1971)
- MEYER, CARL D., JR.: Some remarks on EP, matrices, and generalized inverses, 3: 275-278 (1970)
- MEYER, CARL D., JR.: The Moore-Penrose inverse of a bordered matrix, 5: 375-382 (1972)
- MEYER, CARL D., JR.: See Campbell, Stephen L.
- MEYER, CARL D., JR.: See Stadelmaier, Michael W.
- MEYER, HANS-BERNHARD: Matrix Riccati solutions, 20: 131-146 (1978)
- MICALI, ARTIBANO, CAMPOS, TANIA M. M., COSTA E SILVA, MARIA C., AND FERREIRA, SILVIA M. M.: Derivations dans les algebres gametiques. II: Derivations in gametic algebras. II, 64: 175-181 (1985)
- MICCHELLI, C. A.: See Cavaretta, A. S., Jr.
- MICCHELLI, CHARLES A.: See Dahmen, Wolfgang
- MICCHELLI, CHARLES A.: See Friedland, Shmuel
- MICCHELLI, CHARLES A.: See Goodman, T. N. T.
- MICCHELLI, CHARLES A. AND WILLOUGHBY, R. A.: On functions which preserve the class of Stieltjes matrices, 23: 141-156 (1979)
- MIHALYFFY, L.: An alternative representation of the generalized inverse of partitioned matrices, 4: 95-100 (1971)
- MILASZEWICZ, J. P.: Improving Jacobi and Gauss-Seidel iterations, 93: 161-170 (1987)
- MILASZEWICZ, J. P.: On modified Jacobi linear operators, 51: 127-136 (1983)
- MILLER, VALERIE A. AND NEUMANN, MICHAEL: Successive overrelaxation methods for solving the rank deficient linear least squares problem, 88: 533-557 (1987)
- MINC, HENRYK: Linear transformations on nonnegative matrices, 9: 149-153 (1974)
- MINC, HENRYK: Nearly decomposable matrices, 5: 181-187 (1972)
- MINC, HENRYK: On a conjecture of R. A. Brualdi, 94: 61-66 (1987)
- MINC, HENRYK: On a conjecture of R. F. Scott (1981), 28: 141-153 (1979)
- MINC, HENRYK: Permanent compounds and permanents of (0,1)-circulants, 86: 11-42 (1987)
- MINC, HENRYK: Recurrence formulas for per-

- manents of $(0,1)$ -circulants, 71: 241-265 (1985)
- MINC, HENRYK: See Marcus, Marvin
- MIRANKER, W.: See Chazan, D.
- MIRANKER, W. L. AND CHERN, I.-L.: Dichotomy and conjugate gradients in the stiff initial value problem, 36: 57-77 (1981)
- MIRANKER, W. L. AND PAN, V. YA.: Methods of aggregation, 29: 231-257 (1980)
- MIRANKER, WILLARD L.: See Chatelin, Françoise
- MIRMAN, BORIS: Anti-eigenvalues: method of estimation and calculation, 49: 247-255 (1983)
- MIRSKY, L.: See Smith, R. A.
- MIRSKY, LEON: Leon Mirsky, 1918-1983, 61: 1-10 (1984)
- MISSIRLIS, NIKOLAOS M.: A parallel iterative system solver, 65: 25-44 (1985)
- MITRA, SUJIT KUMAR: On group inverses and the sharp order, 92: 17-37 (1987)
- MITRA, SUJIT KUMAR: Simultaneous diagonalization of rectangular matrices, 47: 139-150 (1982)
- MITRA, SUJIT KUMAR: The matrix equations $AX = C$, $XB = D$, 59: 171-181 (1984)
- MITRA, SUJIT KUMAR: The minus partial order and the shorted matrix, 83: 1-27 (1986)
- MITRA, SUJIT KUMAR AND ODELL, PATRICK L.: On parallel summability of matrices, 74: 239-255 (1986)
- MITRA, SUJIT KUMAR AND PURI, MADAN L.: Shorted matrices—an extended concept and some applications, 42: 57-79 (1982)
- MITRA, SUJIT KUMAR AND PURI, MADAN L.: Shorted operators and generalized inverses of matrices, 25: 45-56 (1979)
- MITRA, SUJIT KUMAR AND RAO, C. RADHAKRISHNA: Projections under seminorms and generalized Moore Penrose inverses, 9: 155-167 (1974)
- MITRA, SUJIT KUMAR AND TRAPP, GEORGE E.: On hybrid addition of matrices, 10: 19-35 (1975)
- MITTER, S. K.: See Djafferis, T. E.
- MIZORI-OBIAK, PAVLA AND VIDAV, IVAN: On entire matrix-valued functions, 22: 25-31 (1978)
- MLYNARSKI, MAX: A note on matricial minimality, 17: 133-138 (1977)
- MLYNARSKI, MAX: See Deutsch, Emeric
- MOBERT, T.: See Jongen, H. Th.
- MODI, J. J.: See Davies, Roy O.
- MOHAN, S. R.: On the simplex method and a class of linear complementarity problems, 14: 1-9 (1976)
- MOHAN, S. R.: See Ramamurthy, K. G.
- MOHAN, S. R., NEUMANN, M., AND RAMAMURTHY, K. G.: Nonnegativity of principal minors of generalized inverses of M -matrices, 58: 247-259 (1984)
- MOHAR, BOJAN: The spectrum of an infinite graph, 48: 245-256 (1982)
- MOHAR, BOJAN AND OMLADIC, MATJAZ: Divisors and the spectrum of infinite graphs, 91: 99-106 (1987)
- MOLER, CLEVE: See Golub, Gene H.
- MOND, B.: See Craven, B. D.
- MOND, BERTRAM: Generalized inverse extensions of matrix inequalities, 2: 393-399 (1969)
- MOND, BERTRAM AND HANSON, MORGAN A.: A complex transposition theorem with applications to complex programming, 2: 49-56 (1969)
- MOND, BERTRAM AND HANSON, MORGAN A.: Some generalizations and applications of a complex transposition theorem, 2: 401-411 (1969)
- MOON, YIU SANG: See Crawford, C. R.
- MOORE, DAVID S.: See Cleser, Leon J.
- MOORE, JOHN B.: See Anderson, Brian D. O.
- MOORE, KENNETH: Decomposable bilinear numerical radii, 42: 253-260 (1982)
- MOORE, KENNETH: See Marcus, Marvin
- MOORE, MICHAEL H.: An improved upper bound in the maximum dispersal problem, 8: 471-476 (1974)
- MOORE, MICHAEL H.: Vector packing in finite dimensional vector spaces, 8: 213-224 (1974)
- MOORS, J. J. A.: Minimizing a norm of a matrix, 2: 447-449 (1969)
- MORE, J. AND RHEINBOLDT, W.: On P - and S -functions and related classes of n -dimensional nonlinear mappings, 6: 45-68 (1973)
- MOREL, PAUL: Des algorithmes pour le problème inverse des valeurs propres, 13: 251-273 (1976)
- MORF, M.: See Friedlander, B.

- MORF, MARTIN: See Genin, Yves
- MORF, MARTIN: See Nehorai, Arye
- MORGAN, D.: See Kailath, T.
- MORGAN, FRANK: The exterior algebra $\Lambda^k \mathbb{R}^n$ and area minimization, 66: 1-28 (1985)
- MORLEY, T. D.: See Anderson, W. N., Jr.
- MORLEY, T. D.: See Layton, W.
- MOUSOURIS, NICK: See Porter, A. Duane
- MOYLAN, PETER J.: Matrices with positive principal minors, 17: 53-58 (1977)
- MUCHA, M. AND LULEK, T.: Permutational symmetry of Clebsch-Gordan coefficients for the metacyclic groups, 51: 49-71 (1983)
- MUHLBACH, G. AND GASCA, M.: A generalization of Sylvester's identity on determinants and some applications, 66: 221-234 (1985)
- MUHLI, PAUL S.: See McAsey, Michael J.
- MUIRHEAD, ROBB J. AND LEUNG, PUI LAM: Estimating functions of canonical correlation coefficients, 70: 173-183 (1985)
- MUKHERJEA, KALYAN K.: See Bhatia, Rajendra
- MULLEN, GARY L.: Equivalence classes of matrices over finite fields, 27: 61-68 (1979)
- MULLER, KARL HANS: Über den Spektralradius verallgemeinerter Relaxationsverfahren, 6: 263-268 (1973)
- MULLER, VLADIMIR: On the spectrum of an infinite graph, 93: 187-189 (1987)
- MULLER-FUNK, U., PUKELSHEIM, F., AND WITTING, H.: On the duality between locally optimal tests and optimal experimental designs, 67: 19-34 (1985)
- MUONEKE, N'EKWUNIFE: On the stochastic powers of nonnegative reducible matrices, 90: 57-63 (1987)
- MUROTA, KAZUO: LU-decomposition of a matrix with entries of different kinds, 49: 275-283 (1983)
- MURPHY, IAN S.: A note on the product of complementary principal minors of a positive definite matrix, 44: 169-172 (1982)
- MURRAY, WALTER: See Gill, Philip E.
- MURTY, KATTA C.: On the number of solutions to the complementarity problem and spanning properties of complementary cones, 5: 65-108 (1972)
- NAJFELD, IGOR, VITALE, RICHARD A., AND DAVIS, PHILIP J.: Minkowski iteration of sets, 29: 259-291 (1980)
- NAJMAN, BRANKO: See Langer, Heinz
- NAKAMURA, YOSHIHIRO: Any Hermitian matrix is a linear combination of four projections, 61: 133-139 (1984)
- NANDA, T.: See Deift, P.
- NARAYANA RAO, M. L. AND SATYANARAYANA, K.: On Sherk's plane of order 27, 74: 1-9 (1986)
- NARAYANAN, H.: On the decomposition of vector spaces, 79: 61-98 (1986)
- NARCOWICH, F. J. AND WARD, J. D.: Toeplitz-Hausdorff systems, 62: 183-193 (1984)
- NATTERER, FRANK: A generalized spline method for singular boundary value problems of ordinary differential equations, 7: 189-216 (1973)
- NAZARETH, LARRY: Numerical behavior of LP algorithms based upon the decomposition principle, 57: 181-189 (1984)
- NAZARETH, LARRY: On the convergence of the cyclic Jacobi method, 12: 151-164 (1975)
- NAZARETH, LARRY: Unified approach to unconstrained minimization via basic matrix factorizations, 17: 197-232 (1977)
- NEF, W.: See Bieri, H.
- NEHORA, ARYE AND MORF, MARTIN: A unified derivation for fast estimation algorithms by the conjugate direction method, 72: 119-143 (1985)
- NEL, D. G.: A matrix derivation of the asymptotic covariance matrix of sample correlation coefficients, 67: 137-145 (1985)
- NEUBERGER, J. W.: Finite-dimensional potential theory applied to numerical analysis of linear systems, 35: 193-202 (1981)
- NEUDECKER, H.: On the dispersion matrix of a matrix quadratic form connects with the noncentral Wishart distribution, 70: 257-262 (1985)
- NEUDECKER, HEINZ AND WANSBEEK, TOM: Fourth-order properties of normally distributed random matrices, 97: 13-21 (1987)
- NEUMAIER, A.: Further results on linear interval equations, 87: 155-179 (1987)
- NEUMAIER, A.: On the comparison of H -matrices with M -matrices, 83: 135-141 (1986)
- NEUMAIER, A.: The second largest eigenvalue of a tree, 46: 9-25 (1982)

- NEUMAIER, A. AND VARGA, R. S.: Exact convergence and divergence domains for the symmetric successive overrelaxation iterative (SSOR) method applied to H -matrices, 58: 261-272 (1984)
- NEUMAIER, ARNOLD: New techniques for the analysis of linear interval equations, 58: 273-325 (1984)
- NEUMANN, M.: A combined direct-iterative approach for solving large scale singular and rectangular consistent systems of linear equations, 34: 85-101 (1980)
- NEUMANN, M.: A note on generalizations of strict diagonal dominance for real matrices, 26: 3-14 (1979)
- NEUMANN, M.: Some applications of partial orderings to iterative methods for rectangular linear systems, 19: 95-116 (1978)
- NEUMANN, M.: Subproper splitting for rectangular matrices, 14: 41-51 (1976)
- NEUMANN, M.: The Kahan S.O.R. convergence bound for nonsingular and irreducible M -matrices, 39: 205-222 (1981)
- NEUMANN, M.: See Markham, T. L.
- NEUMANN, M.: See Masser, D. W.
- NEUMANN, M.: See Mohan, S. R.
- NEUMANN, M. AND FLEMMONS, R. J.: Convergence of parallel multisplitting iterative methods for M -matrices, 88: 559-573 (1987)
- NEUMANN, M. AND FLEMMONS, R. J.: Generalized inverse-positivity and splittings of M -matrices, 23: 21-35 (1979)
- NEUMANN, MICHAEL: See Berman, Abraham
- NEUMANN, MICHAEL: See Buoni, John J.
- NEUMANN, MICHAEL: See Deutsch, Emeric
- NEUMANN, MICHAEL: See Fiedler, Miroslav
- NEUMANN, MICHAEL: See Lewin, Mordechai
- NEUMANN, MICHAEL: See Miller, Valerie A.
- NEUMANN, MICHAEL, POOLE, GEORGE D., AND WERNER, HANS-JOACHIM: More on generalizations of matrix monotonicity, 48: 413-435 (1982)
- NEWMAN, MORRIS: An identity of A. Ostrowski, 1: 317-319 (1968)
- NEWMAN, MORRIS: Gershgorin revisited, 30: 247-249 (1980)
- NEWMAN, MORRIS: Lyapunov revisited, 52: 525-528 (1983)
- NEWMAN, MORRIS: See Marcus, Marvin
- NG, C. T.: The equation $F(x) + M(x)G(1/x) = 0$ and homogeneous biadditive forms, 93: 255-279 (1987)
- NG, C. T.: See Aczel, J.
- NG, C. T.: See Chung, J. K.
- NG, DINA: An effective criterion for congruence of real symmetric matrix pairs: Collection of articles dedicated to Olga Taussky Todd, 13: 11-18 (1976)
- NG, ESMOND: See George, Alan
- NGUYEN-QUANG-DO THONG: Structure du groupe des similitudes, 12: 241-246 (1975)
- NGUYEN, TRUC T. AND SAMPSON, ALLAN R.: The geometry of certain fixed marginal probability distributions, 70: 73-87 (1985)
- NGUYEN, V. HIEN AND STRODIOT, J.-J.: Some properties of a uniformly linearly independent sequence of subspaces, 25: 115-127 (1979)
- NICHOLSON, D. W.: Eigenvalue bounds for $AB + BA$, with A , B positive definite matrices, 24: 173-183 (1979)
- NICHOLSON, VICTOR A.: Matrices with permanent equal to one, 12: 185-188 (1975)
- NICKEL, KARL: Die Auflosbarkeit linearer Kreisscheiben- und Intervall-Gleichungssysteme: (The solvability of linear systems of disc and interval equations), 44: 19-40 (1982)
- NICOLAIDES, R. A.: See Gunzburger, Max D.
- NIELSEN, KLAUS: On bireflectionality and tri-reflectionality of orthogonal groups, 94: 197-208 (1987)
- NIELSEN, KLAUS: See Knuppel, Frieder
- NIETHAMMER, W.: See Varga, R. S.
- NIETHAMMER, W.: See Wild, P.
- NIETHAMMER, W., DE PILLIS, J., AND VARGA, R. S.: Convergence of block iterative methods applied to sparse least-squares problems, 58: 327-341 (1984)
- NISHIO, KATSUYOSHI: The structure of a real linear combination of two projections, 66: 169-176 (1985)
- NOE, T.: See McCormick, S. F.
- NOLTE, WOLFGANG: See Ellers, Erich W.
- NOMAKUCHI, KENTARO: On the characterization of generalized inverses by bordered matrices, 33: 1-8 (1980)
- NORDIO, MARCELO: See Fuschmann, Heinrich
- NOUR-OMID, B.: See Parlett, B. N.

- NOWOSAD, PEDRO AND TOVAR, RAUL: Spectral inequalities and G -functions, 31: 179-197 (1980)
- NUSSBAUM, ROGER D.: Convexity and log convexity for the spectral radius, 73: 59-122 (1986)
- NWOKAH, OSITA D. I.: Estimates for the inverse of a matrix and bounds for eigenvalues, 22: 283-291 (1978)
- O'BRIEN, RICHARD C.: On extreme matrices and extreme vectors of cones in R^n , 12: 77-79 (1975)
- ODELL, PATRICK L.: See Mitra, Sujit Kumar
- ODLYZKO, A. M.: See Landau, H. J.
- OKOH, FRANK: Applications of linear functionals to Kronecker modules. I, II, 76: 165-188, 189-204 (1986)
- OKOH, FRANK: Direct sums and direct products of canonical pencils of matrices, 25: 1-26 (1979)
- OKOH, FRANK: See Fixman, Uri
- OKUBO, K.: Holder-type norm inequalities for Schur products of matrices, 91: 13-28 (1987)
- O'LEARY, DIANNE P.: The block conjugate gradient algorithm and related methods, 29: 293-322 (1980)
- O'LEARY, DIANNE P. AND STEWART, G. W.: Assignment and scheduling in parallel matrix factorization: Special volume on parallel computing, 77: 275-299 (1986)
- O'LEARY, DIANNE FROST: A generalized conjugate gradient algorithm for solving a class of quadratic programming problems, 34: 371-399 (1980)
- OLESKY, D. D.: See Ahac, Alan A.
- OLESKY, D. D.: See Johnson, Charles R.
- OLESKY, D. D.: See Johnston, R. L.
- OLESKY, D. D.: See Kovarik, Z. V.
- OLESKY, D. D. AND VAN DEN DRIESSCHE, P.: Monotone positive stable matrices, 48: 381-401 (1982)
- OLKIN, I.: See Anderson, T. W.
- OLKIN, I. AND FUKELSCHEIM, F.: The distance between two random vectors with given dispersion matrices, 48: 257-263 (1982)
- OLKIN, INGRAM: An inequality for a sum of forms, 52: 529-532 (1983)
- OLKIN, INGRAM: Estimating a Cholesky decomposition, 67: 201-205 (1985)
- OLKIN, INGRAM: Matrix extensions of Liouville-Dirichlet-type integrals, 28: 155-160 (1979)
- OLKIN, INGRAM: See Marshall, Albert W.
- OLKIN, INGRAM AND SAMPSON, ALLAN R.: Jacobians of matrix transformations and induced functional equations, 5: 257-276 (1972)
- OMLADIC, MATJAZ: See Mohar, Bojan
- ONG, HOCK: Linear transformations on matrices: the invariance of generalized permutation matrices. III, 15: 119-151 (1976)
- ONG, HOCK: See Lim, M. H.
- ONG, SING CHEONG: On the Schur multiplier norm of matrices, 56: 45-55 (1984)
- ONG, SING CHEONG: Remarks on invariant subspaces for finite-dimensional operators, 42: 99-101 (1982)
- ONG, SING-CHEONG: What kind of operators have few invariant subspaces?, 95: 181-185 (1987)
- ONISHI, HIRONORI: See Appelgate, Harry
- OPFER, GERHARDLENN: Richardson's iteration for nonsymmetric matrices, 58: 343-361 (1984)
- O'REILLY, MICHAEL F.: Matrix algebras with direct product, 16: 19-24 (1977)
- ORTEGA, JAMES M. AND PLEMMONS, ROBERT J.: Extensions of the Ostrowski-Reich theorem for SOR iterations, 28: 177-191 (1979)
- OST, FRIEDEMANN: See Karlin, Samuel
- OSTROWSKI, A. M.: On subdominant roots of nonnegative matrices, 8: 179-184 (1974)
- OSTROWSKI, ALEXANDER: A new proof of Haynsworth's quotient formula for Schur complements, 4: 389-392 (1971)
- OSTROWSKI, ALEXANDER M.: To Alexander M. Ostrowski on his ninetieth birthday, 52: xi-xiv (1983)
- OSTROWSKI, ALEXANDER M.: See Haynsworth, Emilie V.
- OUELLETTE, DIANE VALERIE: Schur complements and statistics, 36: 187-295 (1981)
- OXENRIDER, CLINTON J. AND HILL, RICHARD D.: On the matrix reorderings Γ and Ψ , 69: 205-212 (1985)

- OZGULER, A. BULENT: Polynomial characterizations of (H, F) -invariant subspaces with applications, 73: 1-31 (1986)
- OZGULER, A. BULENT: See Khargonekar, Pramod P.
- PAARDEKOOPER, M. H. C.: See Elsner, L.
- PADBERG, MANFRED W.: Almost integral polyhedra related to certain combinatorial optimization problems, 15: 69-88 (1976)
- PAGANO, MARCELLO: See Luk, Franklin T.
- PAIGE, C. C.: Accuracy and effectiveness of the Lanczos algorithm for the symmetric eigenproblem, 34: 235-258 (1980)
- PAIGE, C. C.: Eigenvalues of perturbed Hermitian matrices, 8: 1-10 (1974)
- PAIGE, C. C.: The general linear model and the generalized singular value decomposition, 70: 269-284 (1985)
- PAIGE, C. C. AND VAN DOOREN, P.: On the quadratic convergence of Kogbetliantz's algorithm for computing the singular value decomposition: Special volume on parallel computing, 77: 301-313 (1986)
- PAIGE, CHRIS AND VAN LOAN, CHARLES: A Schur decomposition for Hamiltonian matrices, 41: 11-32 (1981)
- PALL, GORDON: Partitioning by means of maximal isotropic subspaces, 5: 173-180 (1972)
- PALMER, THEODORE W.: See Daniel, James W.
- PAN, C.-T.: See Alexander, S. T.
- PAN, V. YA.: See Miranker, W. L.
- PANG, JONG SHI: A new characterization of real H -matrices with positive diagonals, 25: 163-167 (1979)
- PANG, JONG SHI: Hidden Z -matrices with positive principal minors, 23: 201-215 (1979)
- PANG, JONG SHI: On cone orderings and the linear complementarity problem, 22: 267-281 (1978)
- PANG, JONG SHI: See Kaneko, Ikuyo
- PAO, C. V.: A further remark on the logarithmic derivatives of a square matrix, 7: 275-278 (1973)
- PAO, C. V.: Logarithmic derivatives of a square matrix, 6: 159-164 (1973)
- PARAMESWARAN, M. R.: Relations between certain matrix products similar to commutativity, 10: 219-224 (1975)
- PARILIS, E. E.: See Markus, A. S.
- PARKER, W. A.: See Curtis, W. D.
- PARLETT, B. N.: A new look at the Lanczos algorithm for solving symmetric systems of linear equations, 29: 323-346 (1980)
- PARLETT, B. N.: A recurrence among the elements of functions of triangular matrices, 14: 117-121 (1976)
- PARLETT, B. N.: Winograd's Fourier transform via circulants, 45: 137-155 (1982)
- PARLETT, B. N. AND LANDIS, T. L.: Methods for scaling to doubly stochastic form, 48: 53-79 (1982)
- PARLETT, B. N. AND NOUR-OMID, B.: The use of a refined error bound when updating eigenvalues of tridiagonals, 68: 179-219 (1985)
- PARLETT, BERESFORD: Normal Hessenberg and moment matrices, 6: 37-43 (1973)
- PARLETT, BERESFORD N. AND SAAD, YCEF: Complex shift and invert strategies for real matrices, 68: 575-595 (1987)
- PARSONS, T. D.: A combinatorial approach to convex quadratic programming, 3: 359-378 (1970)
- PARTER, SEYMOUR V.: On the distribution of the singular values of Toeplitz matrices, 80: 115-130 (1986)
- PARTINGTON, J. R.: Hermitian operators for absolute norms and absolute direct sums, 23: 275-280 (1979)
- PATE, T. H.: Permutation-operator inequalities on certain symmetry classes of tensors, 45: 1-12 (1982)
- PATE, THOMAS H.: An inequality involving permanents of certain direct products, 57: 147-155 (1984)
- PATE, THOMAS H.: Decomposability of symmetric multilinear functions, 65: 71-81 (1985)
- PATE, THOMAS H.: Generalizing the Fischer inequality, 92: 1-15 (1987)
- PATE, THOMAS H.: Lower bounds for the norm of the symmetric product, 14: 285-292 (1976)
- PATEL, RAJNIKANT AND TODA, MITSUHIKO: Trace inequalities involving Hermitian matrices, 23: 13-20 (1979)
- PATTABHIRAMAN, M. V.: See Lancaster, P.
- PAUL, MICHAEL E.: See Houck, David J.
- PAULSEN, VERN I.: See Loeb, Richard I.

- PAVUR, R. J. AND LEWIS, T. O.: The role of powers of matrices in determining the distribution of quadratic forms involving the complex normal distribution, 76: 71-84 (1986)
- PAZ, A.: Word functions of pseudo-Markov chains, 10: 1-5 (1975)
- PEARL, MARTIN H.: Generalized inverses of matrices with entries taken from an arbitrary field, 1: 571-587 (1968)
- PEDERSON, ROGER N.: See Hager, William W.
- PERELOMOV, A. M.: See Calogero, F.
- PERESI, LUIZ A.: On baric algebras with prescribed automorphisms, 78: 163-185 (1986)
- PERFECT, HAZEL: See Burkill, H.
- PETTET, MARTIN R.: Near-fields and linear transformations of finite fields, 48: 443-456 (1982)
- PHADKE, S. V. AND THAKARE, N. K.: Generalized inverses and operator equations, 23: 191-199 (1979)
- PHADKE, S. V. AND THAKARE, N. K.: On a conjecture of S. V. Phadke and N. K. Thakare: "Generalized inverses and operator equations" (Linear Algebra Appl. 23 (1979), 191-199; MR 80b:47017), 32: 113-114 (1980)
- PHAM DINH TAO: Convergence of a subgradient method for computing the bound norm of matrices, 62: 163-182 (1984)
- PIERCE, STEPHEN: See Ballantine, C. S.
- PIERCE, STEPHEN: See Carlson, David
- PIERCE, STEPHEN: See Choudhury, Dipa
- PIERCE, STEPHEN: See Marcus, Marvin
- PIFF, M. J.: Inverses of banded and k -Hessenberg matrices, 85: 9-15 (1987)
- PINKUS, A.: Some extremal problems for strictly totally positive matrices, 64: 141-156 (1985)
- PINKUS, A.: See de Boor, C.
- PINKUS, ALLAN: Matrices and n -widths, 27: 245-278 (1979)
- PINKUS, ALLAN: See Karlin, Samuel
- PINKUS, ALLAN: See de Boor, Carl
- PITTELKOW, UWE: See Runckel, Hans-J.
- PITTENGER, ARTHUR O.: See Houck, David J.
- PIZARRO, ANTONIO: Similarity classes of 3×3 matrices over a discrete valuation ring, 54: 29-51 (1983)
- PLEMMONS, R. J.: M -matrices leading to semi-convergent splittings, 15: 243-252 (1976)
- PLEMMONS, R. J.: M -matrix characterizations. I. Nonsingular M -matrices, 18: 175-188 (1977)
- PLEMMONS, R. J.: Graphs and nonnegative matrices, 5: 283-292 (1972)
- PLEMMONS, R. J.: See Alexander, S. T.
- PLEMMONS, R. J.: See Berman, A.
- PLEMMONS, R. J.: See Cline, R. E.
- PLEMMONS, R. J.: See Funderlic, R. E.
- PLEMMONS, R. J.: See Markham, T. L.
- PLEMMONS, R. J.: See Neumann, M.
- PLEMMONS, ROBERT J.: See Golub, Gene H.
- PLEMMONS, ROBERT J.: See Ortega, James M.
- PLESS, VERA AND RUSHANAN, JOSEPH J.: Triadic codes, 98: 415-433 (1988)
- POKRZYWA, ANDRZEJ: On continuity of spectra in norm ideals, 69: 121-130 (1985)
- POKRZYWA, ANDRZEJ: On perturbations and the equivalence orbit of a matrix pencil, 82: 99-121 (1986)
- POLLOCK, D. S. G.: Tensor products and matrix differential calculus, 67: 169-193 (1985)
- POLMAN, BEN: Incomplete blockwise factorizations of (block) H -matrices, 90: 119-132 (1987)
- POLMAN, BEN: See Axelsson, Owe
- POLMAN, BEN: See Eimers, Ruud
- POLUIKIS, JOHN A. AND HILL, RICHARD D.: Completely positive and Hermitian-preserving linear transformations, 35: 1-10 (1981)
- POLYRAKIS, IOANNIS A.: Cones locally isomorphic to the positive cone of $I_1(\Gamma)$: Proceedings of the symposium on operator theory (Athens, 1985), 84: 323-334 (1986)
- POMMER, CHRISTIAN AND KLIEM, WOLFHARD: Simultaneously normalizable matrices, 94: 113-125 (1987)
- PONSTEIN, J.: A matrix minimization problem involving ranks, 92: 81-106 (1987)
- POOLE, G. D. AND BARKER, G. P.: MP matrices, 26: 165-174 (1979)
- POOLE, GEORGE D.: See Campbell, Stephen L.
- POOLE, GEORGE D.: See Neumann, Michael
- POOLE, GEORGE D.: See Stadelmaier, Michael W.
- POOLLA, KAMESHWAR R.: See Khargonekar, Pramod P.
- POON, YIU TUNG: See Au-Yeung, Yik Hoi

- PORSCHING, T. A.: *See* Frey, A. E.
- PORTER, A. DUANE: Solvability of the matrix equation $AX = B$, 13: 177-184 (1976)
- PORTER, A. DUANE: Some partitions of a Hermitian matrix, 12: 231-239 (1975)
- PORTER, A. DUANE AND MOUSOURIS, NICK: Exponential sums and rectangular partitions, 29: 347-355 (1980)
- PORTER, A. DUANE AND MOUSOURIS, NICK: Ranked solutions of $AXC = B$ and $AX = B$, 24: 217-224 (1979)
- POWELL, M. J. D.: On error growth in the Bartels-Colub and Fletcher-Matthews algorithms for updating matrix factorizations, 88: 597-621 (1987)
- POWELL, M. J. D.: *See* Martin, D. H.
- POWER, S. C.: Finite rank multivariable Hankel forms, 48: 237-244 (1982)
- POWERS, D. L.: *See* Lovass-Nagy, V.
- POWERS, DAVID L.: A block Gershgorin theorem: Collection of articles dedicated to Olga Taussky Todd, 13: 45-52 (1976)
- POWERS, DAVID L.: *See* Lovass-Nagy, Victor
- POWERS, DAVID L. AND SULAIMAN, MOHAMMAD M.: The walk partition and colorations of a graph, 48: 145-159 (1982)
- PRASADA RAO, P. S. S. N. V.: *See* Rao, K. P. S. Bhaskara
- PRASADA RAO, P. S. S. N. V. AND RAO, K. P. S. BHASKARA: On generalized inverses of Boolean matrices, 11: 135-153 (1975)
- PRATHER, RONALD E.: Epimorphisms of free monoids, 13: 201-205 (1976)
- PRATZEL-WOLTERS, D.: Canonical forms for linear systems, 50: 437-473 (1983)
- PRATZEL-WOLTERS, D.: *See* Hinrichsen, D.
- PRECHT, M.: *See* Rao, P. S. S. N. V. P.
- PRZYLUKI, K. MACIEJ: About some problems of spectral synthesis, 50: 475-485 (1983)
- PSIMARNI, A.: *See* Hadjidimos, A.
- PTAK, VLASTIMIL: A maximum problem for matrices, 28: 193-204 (1979)
- PTAK, VLASTIMIL: An equation of Lyapunov type, 39: 73-82 (1981)
- PTAK, VLASTIMIL: An extremal problem for operators: Proceedings of the symposium on operator theory (Athens, 1985), 84: 213-226 (1986)
- PTAK, VLASTIMIL: Bezoutians and projections, 59: 29-42 (1984)
- PTAK, VLASTIMIL: Biorthogonal systems and the infinite companion matrix, 49: 57-78 (1983)
- PTAK, VLASTIMIL: Explicit expressions for Bezoutians, 59: 43-54 (1984)
- PTAK, VLASTIMIL: Hankel matrices and the infinite companion, 81: 199-206 (1986)
- PTAK, VLASTIMIL: Lyapunov equations and Gram matrices, 49: 33-55 (1983)
- PTAK, VLASTIMIL: Lyapunov, Bezout, and Hankel, 58: 363-390 (1984)
- PTAK, VLASTIMIL: Nondiscrete mathematical induction and iterative existence proofs, 13: 223-238 (1976)
- PTAK, VLASTIMIL: Spectral radius, norms of iterates, and critical exponent, 1: 245-260 (1968)
- PTAK, VLASTIMIL: *See* Fiedler, Miroslav
- PTAK, VLASTIMIL: *See* Haynsworth, Emilie
- PTAK, VLASTIMIL AND WIMMER, HARALD K.: On the Bezoutian for polynomial matrices, 71: 267-272 (1985)
- PTAK, VLASTIMIL AND YOUNG, N. J.: Functions of operators and the spectral radius, 29: 357-392 (1980)
- PTAK, VLASTIMIL AND YOUNG, N. J.: Zero location by Hermitian forms: the singular case, 43: 181-196 (1982)
- PUKELSHEIM, F.: *See* Muller-Funk, U.
- PUKELSHEIM, F.: *See* Olkin, I.
- PUKELSHEIM, FRIEDRICH: *See* Baksalary, Jerzy K.
- PULLEYBLANK, W. R.: *See* Giles, F. R.
- PULLMAN, N. J.: A geometric approach to the theory of nonnegative matrices, 4: 297-312 (1971)
- PULLMAN, NORMAN J.: *See* Beasley, LeRoy B.
- PURI, MADAN L.: *See* Mitra, Sujit Kumar
- PURI, PREM S. AND RAMASWAMI, V.: Maximum and minimum weighted diagonal sums of certain non-negative matrices, 16: 247-266 (1977)
- PUSCHMANN, HEINRICH AND NORDIO, MARCELO: Zwei unzulässige Verstärkungen der Vermutung von Wilkinson: Two inadmissible strengthenings of Wilkinson's conjecture, 72: 167-176 (1985)
- PUTCHA, MOHAN S.: Quadratic semigroups on affine spaces, 26: 107-121 (1979)
- PUTCHA, MOHAN S.: *See* Hartwig, Robert E.

- PUYSTJENS, R.: See Huylebrouck, D.
- PUYSTJENS, R. AND VAN GEEL, J.: Diagonalization of matrices over graded principal ideal domains, 48: 265-281 (1982)
- PUYSTJENS, ROLAND: See Robinson, Donald W.
- PUYSTJENS, ROLAND AND ROBINSON, DONALD W.: The Moore-Penrose inverse of a morphism with factorization, 40: 129-141 (1981)
- PYE, W. C.: See Jeter, M. W.
- PYE, W. C., BOULLION, T. L., AND ATCHISON, T. A.: The pseudoinverse of a centrosymmetric matrix, 6: 201-204 (1973)
- PYE, W. C. AND JETER, MELVYN W.: A minimal permanent-like function, 12: 171-178 (1975)
- PYE, WALLACE C.: Nonnegative Drazin inverses, 30: 149-153 (1980)
- PYE, WALLACE C.: See Jeter, Melvyn W.
- QI, LI QUN: Some simple estimates for singular values of a matrix, 56: 105-119 (1984)
- QIAO, SAN ZHENG: See Luk, Franklin T.
- QUACKENBUSH, ROBERT W.: Near vector spaces over $GF(q)$ and $(v, q+1, 1)$ -BIBD's, 10: 259-266 (1975)
- QUEBBEMANN, H.-G.: A representation theorem for algebras with involution, 94: 193-195 (1987)
- QUEIRO, JOAO FILIPE: Invariant factors as approximation numbers, 49: 131-136 (1983)
- QUEIRO, JOAO FILIPE: On the interlacing property for singular values and eigenvalues, 97: 23-28 (1987)
- QUEIRO, JOAO FILIPE: See Bebiano, Natalia
- RACKUSIN, JEFFREY AND WATKINS, WILLIAM: Linear maps on matrices: the invariance of symmetric polynomials, 17: 269-276 (1977)
- RADJAVI, H.: See Choi, M. D.
- RADJAVI, H.: See Gustafson, W. H.
- RADJAVI, HEYDAR: Commutativity-preserving operators on symmetric matrices, 61: 219-224 (1984)
- RADJAVI, HEYDAR: Decomposition of matrices into simple involutions, 12: 247-255 (1975)
- RADO, R.: An extension of Sylvester's law of inertia, 1: 29-32 (1968)
- RAGHAVAN, T. E. S.: Completely mixed games and M -matrices, 21: 35-45 (1978)
- RAGHAVAN, T. E. S.: On pairs of multidimensional matrices, 62: 263-268 (1984)
- RAGHAVAN, T. E. S.: See Bapat, R.
- RAINEY, JOHN W.: The tridiagonal forms of real, nonderogatory matrices, 1: 465-469 (1968)
- RAMAMURTHY, K. G.: A polynomial algorithm for testing the nonnegativity of principal minors of Z -matrices, 83: 39-47 (1986)
- RAMAMURTHY, K. G.: See Mohan, S. R.
- RAMAMURTHY, K. G. AND MOHAN, S. R.: Nonnegativity of principal minors of generalized inverses of P_0 -matrices, 65: 125-131 (1985)
- RAMASWAMI, V.: See Puri, Prem S.
- RAMIREZ, DONALD E.: See Dunkl, Charles F.
- RAN, A. C. M. AND RODMAN, L.: Stability of invariant maximal semidefinite subspaces. I, 62: 51-86 (1984)
- RAN, A. C. M. AND RODMAN, L.: Stability of invariant maximal semidefinite subspaces. II. Applications: selfadjoint rational matrix functions, algebraic Riccati equations, 63: 133-173 (1984)
- RAN, A. M. C. AND VREUGDENHIL, R.: Existence and comparison theorems for algebraic Riccati equations for continuous- and discrete-time systems, 99: 63-83 (1988)
- RAN, ANDRE AND UHLIG, FRANK: A note on a new description of invariant maximal nonnegative subspaces in an indefinite inner product space, 71: 273-274 (1985)
- RAN, ANDRE C. M.: See Ball, Joseph A.
- RANI, OMA: See Kaul, R. N.
- RAO, C. RADHAKRISHNA: The inefficiency of least squares: extensions of the Kantorovich inequality, 70: 249-255 (1985)
- RAO, C. RADHAKRISHNA: See Mitra, Sujit Kumar
- RAO, C. RADHAKRISHNA AND YANAI, HARUO: Generalized inverse of linear transformations: a geometric approach, 66: 87-99 (1985)
- RAO, C. RADHAKRISHNA AND YANAI, HARUO: Generalized inverses of partitioned matrices useful in statistical applications, 70: 105-113 (1985)
- RAO, K. P. S. BHASKARA: On generalized inverses of matrices over integral domains, 49: 179-189 (1983)

- RAO, K. P. S. BHASKARA: See Prasada Rao, P. S. S. N. V.
- RAO, K. P. S. BHASKARA AND PRASADA RAO, P. S. S. N. V.: On generalized inverses of Boolean matrices. II, 42: 133-144 (1982)
- RAO, P. S. S. N. V. P. AND PRECHT, M.: On a conjecture of Hoerl and Kennard on a property of least squares estimators of regression coefficients, 67: 99-101 (1985)
- RAO, S. B.: See Kumar, Vijaya
- RASCLE, M.: See Robert, F.
- RASHWAN, HAMZA: See George, Alan
- RATHORE, R. K. S. AND CHETTY, C. S. K.: Some angularity and inertia theorems related to normal matrices, 40: 69-77 (1981)
- RAYKHSHTEYN, BORIS: On rational invariants of a set of symmetric matrices, 54: 17-28 (1983)
- REBMAN, KENNETH R.: Total unimodularity and the transportation problem: a generalization, 8: 11-24 (1974)
- REBMAN, KENNETH R.: See Merris, Russell
- REED, I. S.: See Hsu, I. S.
- REHM, HANS P.: On Ochoa's special matrices in matrix classes, 17: 181-188 (1977)
- REICHEL, L.: See Cragg, W. B.
- REICHSTEIN, BORIS: On expressing a cubic form as a sum of cubes of linear forms, 86: 91-122 (1987)
- REICHSTEIN, BORIS: On symmetric operators of higher degree and their applications, 75: 155-172 (1986)
- RESASCO, DIANA C.: See Chan, Tony F.
- RHEINOLDT, W.: See More, J.
- RHEINOLDT, WERNER C. AND SHEPHERD, ROGER A.: On a characterization of tridiagonal matrices by M. Fiedler, 8: 87-90 (1974)
- RICE, JOHN R.: Performance analysis of 13 methods to solve the Galerkin method equations, 52: 533-546 (1983)
- RIES, MANFRED, TROTTENBERG, ULRICH, AND WINTER, GERD: A note on MGR methods, 49: 1-26 (1983)
- RIHA, W. O. J.: See Lau, K. K.
- RINGEL, CLAUS MICHAEL: See Dlab, Vlastimil
- RINOTT, YOSEF: See Karlin, Samuel
- RITOV, YAKOV: See Haviv, Moshe
- RIZVI, S. A. H.: Inverses of quasitridiagonal matrices, 56: 177-184 (1984)
- ROBBIN, J. W.: Lie algebras of infinitesimal norm isometries, 10: 95-102 (1975)
- ROBBIN, J. W.: See Friedland, S.
- ROBERS, PHILIP D. AND BEN-ISRAEL, ADI: A suboptimization method for interval linear programming: A new method for linear programming, 3: 383-405 (1970)
- ROBERT, F.: Blocs- H -matrices et convergence des methodes iteratives classiques par blocs, 2: 223-265 (1969)
- ROBERT, F.: Contraction en norme vectorielle: convergence d'iterations chaotiques pour des equations non lineaires de point fixe a plusieurs variables: Collection of articles dedicated to Olga Taussky Todd, 13: 19-35 (1976)
- ROBERT, F.: Derivee discrete et comportement local d'une iteration discrete: Discrete derivative and local behavior of a discrete iteration, 52: 547-589 (1983)
- ROBERT, F.: Iterations sur des ensembles finis et automates cellulaires contractants, 29: 393-412 (1980)
- ROBERT, F. AND RASCLE, M.: Contraction faible en norme vectorielle—theorie de Perron-Frobenius pour le cas de blocs, 6: 305-335 (1973)
- ROBERT, FRANCOIS: Theoremes de Perron-Frobenius et Stein-Rosenberg booléens, 19: 237-250 (1978)
- ROBERT, FRANCOIS: See Della Dora, Jean
- ROBERT, YVES: Regular incomplete factorizations of real positive definite matrices, 48: 105-117 (1982)
- ROBERTSON, BRIAN: See Johnson, Charles R.
- ROBINSON, CECIL E., JR.: Generalized inverses of substochastic matrices, 91: 89-98 (1987)
- ROBINSON, CECIL E., JR.: Green's relations for substochastic matrices, 80: 39-53 (1986)
- ROBINSON, DONALD W.: Covariance of Moore-Penrose inverses with respect to an invertible matrix, 71: 275-281 (1985)
- ROBINSON, DONALD W.: Nullities of submatrices of the Moore-Penrose inverse, 94: 127-132 (1987)
- ROBINSON, DONALD W.: On the covariance of the Moore-Penrose inverse, 61: 91-99 (1984)
- ROBINSON, DONALD W.: Separable endomor-

- phisms and higher-order commutators, 4: 285-296 (1971)
- ROBINSON, DONALD W.: The Frobenius rank equality for morphisms, 29: 413-421 (1980)
- ROBINSON, DONALD W.: See Davis, Daniel L.
- ROBINSON, DONALD W.: See Hansen, Gary W.
- ROBINSON, DONALD W.: See Puystjens, Roland
- ROBINSON, DONALD W., PUYSTJENS, ROLAND, AND VAN GEEL, JAN: Categories of matrices with only obvious Moore-Penrose inverses, 97: 93-102 (1987)
- ROBINSON, DONALD W. AND PUYSTJENS, ROLAND: EP morphisms, 64: 157-174 (1985)
- ROBINSON, DONALD W. AND PUYSTJENS, ROLAND: Generalized inverses of morphisms with kernels, 96: 65-85 (1987)
- ROBINSON, HERBERT: See Marcus, Marvin
- ROBINSON, HERBERT A.: Multilinear transformations on matrices, 20: 205-218 (1978)
- ROBINSON, HERBERT A.: See Johnson, Charles R.
- ROBINSON, NORMAN F. AND SMILEY, M. F.: A generalization of the property L of Motzkin and Taussky, 4: 323-328 (1971)
- ROBINSON, STEPHEN M.: Bounds for error in the solution set of a perturbed linear program, 6: 69-81 (1973)
- RODMAN, L.: See Gohberg, I.
- RODMAN, L.: See Ran, A. C. M.
- RODMAN, LEIBA: On connected components in the set of divisors of a monic matrix polynomial, 31: 33-42 (1980)
- RODMAN, LEIBA: See Ballantine, C. S.
- ROESLER, FRIEDRICH: Riemann's hypothesis as an eigenvalue problem. II, 92: 45-73 (1987)
- ROESLER, FRIEDRICH: Riemann's hypothesis as an eigenvalue problem, 81: 153-198 (1986)
- ROHN, JURI: Interval linear systems with prescribed column sums, 39: 143-148 (1981)
- ROTTMAN, MOSHE: A problem on conjugacy of matrices, 19: 87-89 (1978)
- ROMANI, FRANCESCO: On the additive structure of the inverses of banded matrices, 80: 131-140 (1986)
- RONG, GUANG HAO: The error bound of the perturbation of the Drazin inverse, 47: 159-168 (1982)
- ROSCOE, D. F.: The application of matrix theorems to the construction of stable difference representations of the equations of fluid dynamics, 14: 123-130 (1976)
- ROSE, DONALD J.: Matrix identities of the fast Fourier transform, 29: 423-443 (1980)
- ROSE, NICHOLAS J.: A note on computing the Drazin inverse, 15: 95-98 (1976)
- ROSE, NICHOLAS J.: See Stadelmaier, Michael W.
- ROSENBERG, I. G.: See Deza, M.
- ROSENTHAL, ERIK: A remark on Burnside's theorem on matrix algebras, 63: 175-177 (1984)
- ROSS, JEFFREY A.: See Brualdi, Richard A.
- ROTHBLUM, URIEL G.: A rank characterization of the number of final classes of a nonnegative matrix, 23: 65-68 (1979)
- ROTHBLUM, URIEL G.: Algebraic eigenspaces of nonnegative matrices, 12: 281-292 (1975)
- ROTHBLUM, URIEL G.: An index classification of M-matrices, 23: 1-12 (1979)
- ROTHBLUM, URIEL G.: Bounds on the indices of the spectral-circle eigenvalues of a nonnegative matrix, 29: 445-450 (1980)
- ROTHBLUM, URIEL G.: Resolvent expansions of matrices and applications, 38: 33-49 (1981)
- ROTHBLUM, URIEL G.: See Anstreicher, Kurt M.
- ROTHBLUM, URIEL G.: See Haviv, Moshe
- ROTHBLUM, URIEL G. AND SCHNEIDER, HANS: Characterizations of extreme normalized circulations satisfying linear constraints, 46: 61-72 (1982)
- ROTHBLUM, URIEL G. AND TAN, CHOON PENG: Multiplicative processes reaching stationarity in finite time, 55: 155-167 (1983)
- ROTHBLUM, URIEL G. AND TAN, CHOON PENG: Upper bounds on the maximum modulus of subdominant eigenvalues of nonnegative matrices, 66: 45-86 (1985)
- ROUSH, FRED N.: See Bruning, Jochen
- ROUSH, FRED W.: See Kim, Ki Hang
- ROUSSEAU, C. C.: See Faudree, R. J.
- ROZSA, P.: On periodic continuants, 2: 267-274 (1969)
- RUCKMANN, J.: See Jongen, H. Th.
- RUDEANU, SERGIU: See Melter, Robert A.
- RUDRAIAH, N.: See Shivakumar, P. N.
- RUSS, W. M. AND SUMMERS, W. H.: Asymp-

- totic almost periodicity and motions of semigroups of operators: Proceedings of the symposium on operator theory (Athens, 1985), 84: 335-351 (1986)
- RUHE, AXEL: Numerical aspects of Gram-Schmidt orthogonalization of vectors, 52: 591-601 (1983)
- RUHE, AXEL: On the closeness of eigenvalues and singular values for almost normal matrices, 11: 87-93 (1975)
- RUHE, AXEL: Rational Krylov sequence methods for eigenvalue computation, 58: 391-405 (1984)
- RUHE, AXEL: See Ericsson, Thomas
- RUIZ CLAEYSSEN, JULIO CESAR AND DOS SANTOS LEAL, LIARA APARECIDA: Diagonalization and spectral decomposition of factor block circulant matrices, 99: 41-61 (1988)
- RUNCKEL, HANS-J. AND PITTELKOW, UWE: Practical computation of matrix functions, 49: 161-178 (1983)
- RUSHANAN, JOSEPH J.: See Pless, Vera
- RUSSELL, A. M. AND UPTON, C. J. F.: A class of positive semidefinite matrices, 93: 121-126 (1987)
- RUTISHAUSER, H.: Once again: The least square problem, 1: 479-488 (1968)
- RYAVEC, C.: Inequalities for the zeros of Dirichlet L-functions, 28: 205-211 (1979)
- RYSER, H. J.: A generalization of the matrix equation $A^2 = J$, 3: 451-460 (1970)
- RYSER, H. J.: A new look at the optimal assignment problem, 66: 113-121 (1985)
- RYSER, H. J.: A theorem in combinatorial matrix theory, 29: 451-458 (1980)
- RYSER, H. J.: Matrices and set intersections, 37: 267-275 (1981)
- RYSER, H. J.: See Brualdi, Richard A.
- SA, EDUARDO M.: See Grone, Robert
- SAAD, Y.: Variations on Arnoldi's method for computing eigenelements of large unsymmetric matrices, 34: 269-295 (1980)
- SAAD, YUCEF: See Parlett, Beresford N.
- SAAD, YUCEF: Communication complexity of the Gaussian elimination algorithm on multiprocessors: Special volume on parallel computing, 77: 315-340 (1986)
- SAAD, YUCEF: See Ipsen, Ilse C. F.
- SAFF, E. B.: See Anderson, N.
- SAFF, EDWARD B.: See de Boor, Carl
- SAIGAL, R.: See Kojima, M.
- SAIGAL, ROMESH: On the modularity of a matrix, 5: 39-48 (1972)
- SAIN, MICHAEL K.: See Wyman, Bostwick F.
- SAITOH, SABUROU: Positive definite Hermitian matrices and reproducing kernels, 48: 119-130 (1982)
- SAITOH, SABUROU: Quadratic inequalities deduced from the theory of reproducing kernels, 93: 171-178 (1987)
- SAKAI, YUJI: Continuous versions of an inequality due to Hoffman and Wielandt, 71: 283-287 (1985)
- SALAMON, PETER: See Donald, John
- SALZBERG, PABLO M.: The minimal generating space of a polynomial, 36: 89-96 (1981)
- SALZMANN, FRANK L.: A note on eigenvalues of nonnegative matrices, 5: 329-338 (1972)
- SAMPSON, ALLAN R.: A note on a new matrix decomposition, 8: 459-463 (1974)
- SAMPSON, ALLAN R.: See Nguyen, Truc T.
- SAMPSON, ALLAN R.: See Olkin, Ingram
- SANDY, MARKUS: See Marcus, Marvin
- SANE, SHARAD S.: See Drake, David A.
- SANKOFF, DAVID: Context-free grammars and nonnegative matrices, 5: 277-281 (1972)
- SANTOS, MARIA CELIA: On a class of methods for the computation of the spectral radius and the Perron vector of a nonnegative, irreducible matrix, 92: 209-223 (1987)
- SATTANARAYANA, K.: See Narayana Rao, M. L.
- SAUER, T.: See Li, T.-Y.
- SAUNDERS, B. DAVID: A condition for the convexity of the norm-numerical range of a matrix, 16: 167-175 (1977)
- SAUNDERS, B. DAVID: See Berman, Abraham
- SAUNDERS, MICHAEL A.: See Gill, Philip E.
- SAUTTER, W.: See Deuffhard, P.
- SAXENA, R. B., SHARMA, A., AND ZIEGLER, Z.: Hermite-Birkhoff interpolation on roots of unity and Walsh equiconvergence, 52: 603-615 (1983)
- SCHAEFER, H. H.: A metric variant of Frobenius's theorem and some other remarks on positive matrices, 42: 175-182 (1982)
- SCHAFKE, R.: See Lutz, D. A.
- SCHIEFFOLD, EGON: Eine Abschätzung für die

- subdominanten Eigenwerte nichtnegativer Matrizen, 19: 91-93 (1978)
- SCHMID, PETER: Rational matrix groups of a special type, 71: 289-293 (1985)
- SCHMIDT, CUNTHOR AND STROHLEIN, THOMAS: A Boolean matrix iteration in timetable construction, 15: 27-51 (1976)
- SCHNEIDER, HANS: Bound norms, 3: 11-21 (1970)
- SCHNEIDER, HANS: Geometric conditions for the existence of positive eigenvalues of matrices, 38: 253-271 (1981)
- SCHNEIDER, HANS: The concepts of irreducibility and full indecomposability of a matrix in the works of Frobenius, König and Markov, 18: 139-162 (1977)
- SCHNEIDER, HANS: The influence of the marked reduced graph of a nonnegative matrix on the Jordan form and on related properties: a survey: Proceedings of the symposium on operator theory (Athens, 1985), 84: 161-189 (1986)
- SCHNEIDER, HANS: Theorems on M -splittings of a singular M -matrix which depend on graph structure, 58: 407-424 (1984)
- SCHNEIDER, HANS: See Barker, G. P.
- SCHNEIDER, HANS: See Bertman, Abraham
- SCHNEIDER, HANS: See Coxson, Pamela G.
- SCHNEIDER, HANS: See Deutsch, Emeric
- SCHNEIDER, HANS: See Engel, Gernot M.
- SCHNEIDER, HANS: See Hershkowitz, Daniel
- SCHNEIDER, HANS: See Loewy, Raphael
- SCHNEIDER, HANS: See Menon, M. V.
- SCHNEIDER, HANS: See Rothblum, Uriel G.
- SCHNEIDER, HANS AND TURNER, R. E. L.: Diagonal norm Hermitian matrices, 8: 375-412 (1974)
- SCHNEIDER, N.: See Alefeld, G.
- SCHNIBBEN, GEORGE E.: See Brawley, J. V.
- SCHOCK, EBERHARD: What are the proper condition numbers of discretized ill-posed problems?, 81: 129-136 (1986)
- SCHOENBERG, I. J.: Interpolating splines as limits of polynomials, 52: 617-628 (1983)
- SCHOENBERG, I. J.: See Lipow, Peter R.
- SCHOENBERG, I. J. AND SHARMA, A.: Cardinal interpolation and spline functions. V. The B-splines for cardinal Hermite interpolation, 7: 1-42 (1973)
- SCHONHAGE, ARNOLD: Arbitrary perturbations of Hermitian matrices, 24: 143-149 (1979)
- SCHREIBER, ROBERT: Generalized iterative methods for semidefinite linear systems, 62: 219-230 (1984)
- SCHREIBER, ROBERT: See Elden, Lars
- SCHRIJVER, A.: On total dual integrality, 38: 27-32 (1981)
- SCHULTZ, MARTIN H.: See Eisenstat, Stanley C.
- SCHULTZ, MARTIN H.: See Ipsen, Ilse C. F.
- SCHUMACHER, J. M.: The algebraic regulator problem from the state-space point of view, 50: 487-520 (1983)
- SCHWARZ, BINYAMIN AND ZAKS, ABRAHAM: Contraction of the matrix unit disk: Proceedings of the symposium on operator theory (Athens, 1985), 84: 353-357 (1986)
- SCHWENK, ALLEN J.: Tight bounds on the spectral radius of asymmetric nonnegative matrices, 75: 257-265 (1986)
- SCHWERTFEGGER, H.: Remarks on the generalized inverse of a matrix, 1: 325-328 (1968)
- SCHWERTFEGGER, HANS: On the covariance of the Moore-Penrose inverse, 52: 629-643 (1983)
- SCOTT, ALASTAIR J. AND STYAN, GEORGE P. H.: On a separation theorem for generalized eigenvalues and a problem in the analysis of sample surveys, 70: 209-224 (1985)
- SCOTT, DAVID S.: Avoiding the square-root bottleneck in the Choleski factorization of a matrix on a parallel computer: Special volume on parallel computing, 77: 341-344 (1986)
- SCOTT, DAVID S.: On the accuracy of the Gerschgorin circle theorem for bounding the spread of a real symmetric matrix, 65: 147-155 (1985)
- SCOTT, DAVID S., HEATH, MICHAEL T., AND WARD, ROBERT C.: Parallel block Jacobi eigenvalue algorithms using systolic arrays: Special volume on parallel computing, 77: 345-355 (1986)
- SEARLE, S. R.: On inverting circulant matrices, 25: 77-89 (1979)
- SEBERRY, JENNIFER AND LAM, CLEMENT W. H.: On orthogonal matrices with constant diagonal, 46: 117-129 (1982)

- SEIDEL, J. J.: Strongly regular graphs with $(-1, 1, 0)$ adjacency matrix having eigenvalue 3, 1: 281-298 (1968)
- SEIDEL, J. J.: See Blokhuis, A.
- SEIDMAN, THOMAS I.: An inequality for complex matrices, 8: 327-330 (1974)
- SEKERKA, BOHUSLAV: See Mandel, Jan
- SELLERS, PETER H.: See Cohen, Joel E.
- SEMAL, P.: See Courtois, P.-J.
- SENETA, E.: Computing the stationary distribution for infinite Markov chains, 34: 259-267 (1980)
- SENETA, E.: Explicit forms for ergodicity coefficients and spectrum localization, 60: 187-197 (1984)
- SENETA, E.: See Isaacson, Dean
- SENETA, E. AND SHERIDAN, SUZANNE: Strong ergodicity of nonnegative matrix products, 37: 277-292 (1981)
- SENGUPTA, SAILES KUMAR: Comparison of eigenvectors of irreducible stochastic matrices, 12: 101-110 (1975)
- SEXTON, H., SHENSA, M., AND SPEISER, J.: Remarks on a displacement-rank inversion method for Toeplitz systems, 45: 127-130 (1982)
- SHA, HU YUN: Estimation of the eigenvalues of AB for $A > 0$, $B > 0$, 73: 147-150 (1986)
- SHAH, K. R.: See Khatri, C. G.
- SHALOM, TAMIR: On algebras of Toeplitz matrices, 96: 211-226 (1987)
- SHALOM, TAMIR: See Ben-Artzi, Asher
- SHAMIR, T.: An algebraic approach to the partial realization problem, 73: 171-196 (1986)
- SHAMIR, T. AND FUHRMANN, P. A.: Minimal factorizations of rational matrix functions in terms of polynomial models, 68: 67-91 (1985)
- SHANE, B. A. AND BARNETT, S.: On the bilinear transformation of companion matrices, 9: 175-184 (1974)
- SHANGJUN, YANG AND BARKER, GEORGE P.: On the exponent of a primitive, minimally strong digraph, 99: 177-198 (1988)
- SHANNY, R. F.: See Brualdi, R. A.
- SHAO, JIA YU: Matrices permutation equivalent to primitive matrices, 65: 225-247 (1985)
- SHAO, JIA YU: On a conjecture about the exponent set of primitive matrices, 65: 91-123 (1985)
- SHAO, JIA YU: On the exponent of a primitive digraph, 64: 21-31 (1985)
- SHAO, JIA YU: Products of irreducible matrices, 68: 131-143 (1985)
- SHAO, JIA YU AND LI, QIAO: On the index of convergence of an irreducible Boolean matrix, 97: 185-210 (1987)
- SHAPIRO, A.: See Browne, M. W.
- SHAPIRO, ALEXANDER: Extremal problems on the set of nonnegative definite matrices, 67: 7-18 (1985)
- SHAPIRO, ALEXANDER: Identifiability of factor analysis: some results and open problems, 70: 1-7 (1985)
- SHAPIRO, ALEXANDER: On the unsolvability of inverse eigenvalues problems almost everywhere, 49: 27-31 (1983)
- SHAPIRO, H.: Simultaneous block triangularization and block diagonalization of sets of matrices, 25: 129-137 (1979)
- SHAPIRO, HELENE: A conjecture of Kippenhahn about the characteristic polynomial of a pencil generated by two Hermitian matrices. II, 45: 97-108 (1982)
- SHAPIRO, HELENE: Hermitian pencils with a cubic minimal polynomial, 48: 81-103 (1982)
- SHAPIRO, HELENE: On a conjecture of Kippenhahn about the characteristic polynomial of a pencil generated by two Hermitian matrices. I, 43: 201-221 (1982)
- SHAPIRO, HELENE: See Coxson, Pamela G.
- SHAPIRO, HELENE M.: See Gaines, Fergus J.
- SHARMA, A.: See Fabrykowski, J.
- SHARMA, A.: See Saxena, R. B.
- SHARMA, A.: See Schoenberg, I. J.
- SHARMA, BHU DEV AND DASS, BAL KISHAN: On linear codes correcting random and low-density burst errors, 16: 5-18 (1977)
- SHARPE, D. W.: Grade and the theory of linear equations, 18: 25-32 (1977)
- SHASHA, DAFNA AND BERMAN, ABRAHAM: On the uniqueness of the Lyapunov scaling factors, 91: 53-63 (1987)
- SHAYMAN, MARK A.: See Helmke, Uwe

- SHEEHAN, J.: See Faudree, R. J.
- SHEKHTMAN, BORIS: On some problems of M. Z. Nashed on outer inverses, 76: 149-152 (1986)
- SHEMESH, DAN: Common eigenvectors of two matrices, 62: 11-18 (1984)
- SHEMESH, DAN: Unobservable subspaces and common roots of several polynomials, 95: 187-210 (1987)
- SHENG, RONG QIN: Properties of the Golub-Wilkinson algorithm, 92: 75-80 (1987)
- SHENSA, M.: See Sexton, H.
- SHEPHERD, ROGER A.: See Rheinboldt, Werner C.
- SHERIDAN, SUZANNE: See Seneta, E.
- SHERIF, NAGWA: See Kovarik, Zdislav V.
- SHIEH, LEANG S.: See Tsay, Yih T.
- SHIFLETT, R. C.: See Benson, R. V.
- SHILOACH, YOSHI: See Aspvall, Bengt
- SHINOZAKI, NOBUO AND SIBUYA, MASAOKI: Further results on the reverse-order law, 27: 9-16 (1979)
- SHINOZAKI, NOBUO AND SIBUYA, MASAOKI: The reverse order law $(AB)^- = B^-A^-$, 9: 29-40 (1974)
- SHISHA, O.: See Arms, R. J.
- SHIVAKUMAR, P. N., WILLIAMS, J. J., AND RUDRALAH, N.: Eigenvalues for infinite matrices, 96: 35-63 (1987)
- SHIVAKUMAR, P. N. AND WONG, R.: Linear equations in infinite matrices, 7: 53-62 (1973)
- SHRIKHANDE, MOHAN: A survey of some problems in combinatorial designs—a matrix approach, 79: 215-247 (1986)
- SHUB, M.: See Weiss, N.
- SIBUYA, MASAOKI: See Shinozaki, Nobuo
- SIERKSMA, GERARD: Nonnegative matrices: the open Leontief model, 26: 175-201 (1979)
- SIERKSMA, GERARD AND STEENGE, ALBERT E.: Two-minor stable matrices and the open Leontief model, 95: 1-10 (1987)
- SIERKSMA, GERARD AND STERKEN, ELMER: The structure matrix of $(0,1)$ -matrices: its rank, trace, and eigenvalues. An application to econometric models, 83: 151-166 (1986)
- SILBER, ROBERT: A linear dependence theorem with application to the calculus of variations, 3: 441-450 (1970)
- SILVA, F. CONCEICAO: On the invariant factors of the matrix $XAY + B$, 96: 1-16 (1987)
- SILVA, ILDA P.: See Cordovil, Raul
- SILVERMAN, L. M.: See Hautus, M. L. J.
- SIMÕES-PEREIRA, J. M. S. AND ZAMFIRESCU, CHRISTINA M.: Submatrices of non-tree-realizable distance matrices, 44: 1-17 (1982)
- SIMON, BARRY: See Friedland, Shmuel
- SIMON, HORST D.: Analysis of the symmetric Lanczos algorithm with reorthogonalization methods, 61: 101-131 (1984)
- SIMS, S. E.: See McMath, John S.
- SINGER, IVAN: See Martinez-Legaz, Juan-Enrique
- SINGHI, N. M.: See Kumar, Vijaya
- SINKHORN, RICHARD: A relationship between stochastic matrices and eigenvalues of products, 23: 53-63 (1979)
- SINKHORN, RICHARD: Doubly stochastic matrices which have certain diagonals with constant sums, 16: 79-82 (1977)
- SINKHORN, RICHARD: Power symmetric stochastic matrices, 40: 225-228 (1981)
- SIPPEL, C.: See Geldenhuis, G.
- SISKAKIS, ARISTOMENIS G.: Weighted composition semigroups on Hardy spaces: Proceedings of the symposium on operator theory (Athens, 1985), 84: 359-371 (1986)
- SIZER, WALTER S.: Triangularizing semigroups of matrices over a skew field, 16: 177-187 (1977)
- SLEPIAN, PAUL: See Loughlin, Timothy A.
- SLOANE, N. J. A.: See Graham, R. L.
- SMEDS, PER A.: Line digraphs and the Moore-Penrose inverse, 36: 165-172 (1981)
- SMILEY, M. F.: See Robinson, Norman F.
- SMITH, KIRBY C.: The centralizer of a matrix with real quaternion elements, 8: 331-335 (1974)
- SMITH, KIRBY C.: The centralizer of a semi-linear transformation, 14: 21-27 (1976)
- SMITH, P. W.: See Cavaretta, A. S., Jr.
- SMITH, P. W. AND WOLKOWICZ, HENRY: Dimensionality of bi-infinite systems, 57: 115-130 (1984)
- SMITH, R. A. AND MIRSKEY, L.: The areal spread of matrices, 2: 127-129 (1969)
- SMITH, RONALD L.: Factorization of symmetric singular M -matrices, 23: 253-259 (1979)

- SMITH, RONALD L.: Moore-Penrose inverses of block circulant and block k -circulant matrices, 16: 237-245 (1977)
- SMITH, RONALD L.: On Markham's M -matrix properties, 87: 189-195 (1987)
- SMITH, RONALD L.: On the spectrum of N_0 -matrices, 83: 129-134 (1986)
- SMITH, RONALD L.: The Moore-Penrose inverse of a retrocirculant, 22: 1-8 (1978)
- SMITH, RUSSELL A.: Area of convex hull of matrix eigenvalues, 4: 77-78 (1971)
- SMOOKE, M. D.: See Mattheij, R. M. M.
- SODERLIND, G.: See Mattheij, R. M. M.
- SODUPE, MARIA-JOSE: Interlacing inequalities for generalized singular values, 87: 85-92 (1987)
- SOLHEID, ERNIE S.: See Brualdi, Richard A.
- SOLOMBRINO, L.: See Garola, C.
- SORENSEN, D. C.: See Heath, M. T.
- SOUROUR, A. R.: Anti-invariant subspaces of maximum dimension, 74: 39-45 (1986)
- SPAIN, P. G.: Solving an operator equation by iteration, 20: 69-70 (1978)
- SPEISER, J.: See Sexton, H.
- SPIGLER, RENATO: An application of group theory to matrices and to ordinary differential equations, 44: 143-151 (1982)
- SPINGARN, JONATHAN E.: A primal-dual projection method for solving systems of linear inequalities, 65: 45-62 (1985)
- SPINGARN, JONATHAN E.: A projection method for least-squares solutions to overdetermined systems of linear inequalities, 86: 211-236 (1987)
- SPREEN, DIETER: On some properties of the Cesaro limit of a stochastic matrix, 41: 81-91 (1981)
- STADELMAIER, M. W.: See Meyer, C. D., Jr.
- STADELMAIER, MICHAEL W., ROSE, NICHOLAS J., POOLE, GEORGE D., AND MEYER, CARL D., JR.: Nonnegative matrices with power invariant zero patterns, 42: 23-29 (1982)
- STAFNEY, JAMES D.: Correction to: Functions of a matrix and their norms, 39: 259-260 (1981)
- STAFNEY, JAMES D.: Functions of a matrix and their norms, 20: 87-94 (1978)
- STANDISH, C. J.: Truncated Taylor series approximation to the state transition matrix of a continuous parameter finite Markov chain, 12: 179-183 (1975)
- STANFORD, DAVID P.: See Conner, Luther T., Jr.
- STANLEY, RICHARD P.: A bound on the spectral radius of graphs with e edges, 87: 267-269 (1987)
- STANTON, R. G.: See Andres, T. H.
- STAVRAKAKIS, NICOLAOS: See Kravvaritis, Dimitrios
- STEEB, W.-H.: The relation between the Kronecker product, the trace calculation, and the one-dimensional Ising model, 37: 261-265 (1981)
- STEENGE, ALBERT E.: See Sierksma, Gerard
- STEGALL, CHARLES: Optimization and differentiation in Banach spaces: Proceedings of the symposium on operator theory (Athens, 1985), 84: 191-211 (1986)
- STEIN, MARJORIE L.: A saddlepoint theorem for self-dual linear systems, 9: 55-65 (1974)
- STEIN, S. K.: Modified linear dependence and the capacity of a cyclic graph, 17: 191-195 (1977)
- STEMBRIDGE, JOHN R. AND TODD, JOHN: On a trigonometrical sum, 35: 287-295 (1981)
- STENS, R. L.: See Butzer, P. L.
- STEPHENS, A. B.: See Kellogg, R. B.
- STEPHENS, N. M.: See Atkinson, M. D.
- STEPNIAK, CZESLAW: Ordering of nonnegative definite matrices with application to comparison of linear models, 70: 67-71 (1985)
- STEPNIAK, CZESLAW: Two orderings on a convex cone of nonnegative definite matrices, 94: 263-272 (1987)
- STERKEN, ELMER: See Sierksma, Gerard
- STERN, RONALD J.: Generalized M -matrices, 41: 201-208 (1981)
- STERN, RONALD J.: On strictly positively invariant cones, 48: 13-24 (1982)
- STERN, RONALD J.: See Berman, Abraham
- STERN, RONALD J. AND TSATSOMEROS, MICHAEL: Extended M -matrices and subtangentiality, 97: 1-11 (1987)
- STERNA-KARWAT, ALICJA: A note on additive convex processes, 57: 1-12 (1984)
- STERNA-KARWAT, ALICJA: On weak monomorphisms in the category of convex processes, 47: 173-179 (1982)
- STEUTEL, F. W.: See Hoekstra, A. H.

- STEWART, G. W.: A note on the perturbation of singular values, 28: 213-216 (1979)
- STEWART, G. W.: A second order perturbation expansion for small singular values, 56: 231-235 (1984)
- STEWART, G. W.: Perturbation bounds for the definite generalized eigenvalue problem, 23: 69-85 (1979)
- STEWART, G. W.: Preface: A. S. Householder, 28: 1-3 (1979)
- STEWART, G. W.: See Golub, G. H.
- STEWART, G. W.: See McAllister, D. F.
- STEWART, G. W.: See O'Leary, Dianne P.
- STEWART, W. J.: See McAllister, D. F.
- STEWART, WILLIAM J.: See Cao, Wei Lu
- STICKEL, EBERHARD: On the Frechet derivative of matrix functions, 91: 83-88 (1987)
- STOER, J.: Two examples on the convergence of certain rank-2 minimization methods for quadratic functionals in Hilbert space, 28: 217-222 (1979)
- STOER, J.: See Bauer, F. L.
- STONE, RICHARD E.: See Cottle, Richard W.
- STOYAN, GISBERT: On maximum principles for monotone matrices, 78: 147-161 (1986)
- STRASSEN, V.: Rank and optimal computation of generic tensors, 52: 645-685 (1983)
- STRAUS, ERNST G.: Ernst G. Straus (1922-1983), 64: 1-19 (1985)
- STRAUS, ERNST G.: See Goldberg, Moshe
- STRAUSS, NICHOLAS: Jordan form of a binomial coefficient matrix over Z_p , 90: 65-72 (1987)
- STREIT, ROY L.: Saddle points and over-determined complex equations, 64: 57-76 (1985)
- STRODIOT, J.-J.: See Nguyen, V. Hien
- STROHLEIN, THOMAS: See Schmidt, Gunther
- STRUPPA, DANIELE C.: See Berenstein, Carlos A.
- STUART, JEFFREY L.: The decomposition of idempotents associated with inflators, 97: 171-184 (1987)
- STYAN, GEORGE P. H.: Hadamard products and multivariate statistical analysis, 6: 217-240 (1973)
- STYAN, GEORGE P. H.: On Lavoie's determinantal inequality, 37: 77-80 (1981)
- STYAN, GEORGE P. H.: See Hartwig, Robert E.
- STYAN, GEORGE P. H.: See Merikoski, Jorma Kaarlo
- STYAN, GEORGE P. H.: See Scott, Alastair J.
- STYAN, GEORGE P. H.: See Wolkowicz, Henry
- SUBRAMANIAN, B.: See Buoni, J. J.
- SULAIMAN, MOHAMMAD M.: See Powers, David L.
- SUMMERS, W. H.: See Ruess, W. M.
- SUN, JI GUANG: A note on Stewart's theorem for definite matrix pairs, 48: 331-339 (1982)
- SUN, JI GUANG: See Elsner, Ludwig
- SUNDER, V. S.: A noncommutative analogue of $|D(X^k)| = |kX^{k-1}|$, 44: 87-95 (1982)
- SUNDER, V. S.: On permutations, convex hulls, and normal operators, 48: 403-411 (1982)
- SUNDER, V. S.: See Bapat, R. B.
- SUNG, C. H. AND TAM, B. S.: On the cone of a finite-dimensional compact convex set at a point, 90: 47-55 (1987)
- SWART, E. R.: See Fischer, P.
- SYLVESTER, JOHN: On the dimension of spaces of linear transformations satisfying rank conditions, 78: 1-10 (1986)
- SZABO, PETER: See Butkovic, Peter
- SZATROWSKI, TED H.: Asymptotic distributions in the testing and estimation of the missing-data multivariate normal linear patterned mean and correlation matrix, 67: 215-231 (1985)
- TADMOR, EITAN: Complex symmetric matrices with strongly stable iterates, 78: 65-77 (1986)
- TADMOR, EITAN: The equivalence of L_2 -stability, the resolvent condition, and strict H -stability, 41: 151-159 (1981)
- TADMOR, EITAN: See Friedland, Shmuel
- TADMOR, EITAN: See Goldberg, Moshe
- TAKACS, LAJOS: Random walks on groups, 43: 49-67 (1982)
- TAKAHASHI, KATSUTOSHI: On relative primeness of operator polynomials, 50: 521-526 (1983)
- TAKEMURA, AKIMICHI: On the equivalence of proportional cell frequencies and orthogonality of interaction spaces in n -way ANOVA, 67: 35-49 (1985)
- TAM, B. S.: See Barker, G. P.
- TAM, B. S.: See Sung, C. H.

- TAM, BIT SHUN: A geometric treatment of generalized inverses and semigroups of nonnegative matrices, 41: 225-272 (1981)
- TAM, BIT SHUN: A note on cross-positive matrices, 12: 7-9 (1975)
- TAM, BIT SHUN: Generalized inverses of cone preserving maps, 40: 189-202 (1981)
- TAM, BIT SHUN: On indecomposable subcones, 22: 33-40 (1978)
- TAM, BIT SHUN: On the duality operator of a convex cone, 64: 33-56 (1985)
- TAM, BIT SHUN: On the semiring of cone preserving maps, 35: 79-108 (1981)
- TAM, BIT SHUN: Some results on cross-positive matrices, 15: 173-176 (1976)
- TAM, BIT SHUN: See Barker, George Phillip
- TAM, BIT SHUN: See Loewy, Raphael
- TAM, TIN YAU: Linear operators on matrices: the invariance of the decomposable numerical radius, 87: 147-153 (1987)
- TAM, TIN YAU: Linear operators on matrices: the invariance of the decomposable numerical range. II, 92: 197-207 (1987)
- TAM, TIN YAU: Linear operators on matrices: the invariance of the decomposable numerical range, 85: 1-7 (1987)
- TAM, TIN YAU: The generalized spectral matrices and radial matrices on symmetry classes of tensors, 85: 29-48 (1987)
- TAMIR, A.: See Barel, M.
- TAMIR, A.: See Felzenbaum, A.
- TAMMER, K.: See Jongen, H. Th.
- TAN, CHOON PENG: See Rothblum, Uriel G.
- TAN, KOK-KEONG: See Chan, Gin-Hor
- TANABE, KUNIO: Neumann-type expansion of reflexive generalized inverses of a matrix and the hyperpower iterative method, 10: 163-175 (1975)
- TANG, WAI-SHING: On positive linear maps between matrix algebras, 79: 33-44 (1986)
- TANNENBAUM, ALLEN: On the stabilizer subgroup of a pair of matrices, 50: 527-544 (1983)
- TANNY, STEPHEN M. AND ZUKER, MICHAEL: The sensitivity of eigenvalues under elementary matrix perturbations, 86: 123-143 (1987)
- TARAZAGA, PABLO: See Marchi, Ezio
- TAUB, HEDI AND GUTMAN, SHAUL: Roots of composite polynomials—an application to root clustering, 87: 181-188 (1987)
- TAUSSKY, OLGA: A generalization of matrix commutativity, 2: 349-353 (1969)
- TAUSSKY, OLGA: Additive commutators of rational 2×2 matrices, 12: 1-6 (1975)
- TAUSSKY, OLGA: Automorphisms and generalized automorphisms of quadratic forms treated as characteristic value relations, 1: 349-356 (1968)
- TAUSSKY, OLGA: More on norms from algebraic number fields, commutators and matrices which transform a rational matrix into its transpose, 29: 459-464 (1980)
- TAUSSKY, OLGA: On the congruence transformation of a pencil of real symmetric matrices to a pencil with identical characteristic polynomial, 52: 687-691 (1983)
- TAUSSKY, OLGA: Remarks concerning possible connections between Fermat's last theorem and integral $p \times p$ circulants, 71: 295-297 (1985)
- TAUSSKY, OLGA: Some facts concerning integral representations of the ideals in an algebraic number field, 31: 245-248 (1980)
- TAUSSKY, OLGA: The factorization of the adjugate of a finite matrix, 1: 39-42 (1968)
- TAUSSKY, OLGA: The many aspects of the Pythagorean triangles, 43: 285-295 (1982)
- TAUSSKY, OLGA: The role of symmetric matrices in the study of general matrices, 5: 147-154 (1972)
- TAUSSKY, OLGA: See Estes, Dennis R.
- TAYLOR, JOHN B.: See Anderson, T. W.
- TCHUENTE, MAURICE: Parallel calculation of a linear mapping on a computer network, 28: 223-247 (1979)
- TEROUANNE, ERIC: Le rang d'une matrice carree se promene pas a pas avec la diagonale, 8: 539-545 (1974)
- TERWILLIGER, PAUL: Root system graphs, 94: 157-163 (1987)
- THAKARE, N. K.: See Phadke, S. V.
- THOMAS, DONALD H.: A natural tensor product interpolation formula and the pseudoinverse of a matrix, 13: 239-250 (1976)
- THOMAS, R. S. D.: See Hoskins, W. D.
- THOMASSEN, CARSTEN: Sign-nonsingular matrices and even cycles in directed graphs, 75: 27-41 (1986)

- THOMPSON, GERALD L. AND WEIL, ROMAN L.: The roots of matrix pencils ($Ay = \lambda By$): Existence, calculations, and relations to game theory, 5: 207-226 (1972)
- THOMPSON, R. C.: p -adic matrix valued inequalities, 71: 299-308 (1985)
- THOMPSON, R. C.: Dissipative matrices and related results, 11: 155-169 (1975)
- THOMPSON, R. C.: Interlacing inequalities for invariant factors, 24: 1-31 (1979)
- THOMPSON, R. C.: On the matrices AB and BA , 1: 43-58 (1968)
- THOMPSON, R. C.: On the real and absolute singular values of a matrix product, 4: 243-254 (1971)
- THOMPSON, R. C.: Principal minors of complex symmetric and skew matrices, 28: 249-255 (1979)
- THOMPSON, R. C.: Principal submatrices. IV. On the independence of the eigenvalues of different principal submatrices, 2: 355-374 (1969)
- THOMPSON, R. C.: Principal submatrices. IX. Interlacing inequalities for singular values of submatrices, 5: 1-12 (1972)
- THOMPSON, R. C.: Principal submatrices. VI. Cases of equality in certain linear inequalities, 2: 375-379 (1969)
- THOMPSON, R. C.: Singular value inequalities for matrix sums and minors, 11: 251-269 (1975)
- THOMPSON, R. C.: The L property for singular values, 3: 179-183 (1970)
- THOMPSON, R. C.: The behavior of eigenvalues and singular values under perturbations of restricted rank: Collection of articles dedicated to Olga Taussky Todd, 13: 69-78 (1976)
- THOMPSON, R. C.: The characteristic polynomial of a principal subpencil of a Hermitian matrix pencil, 14: 135-177 (1976)
- THOMPSON, R. C.: The eigenvalues of a partitioned Hermitian matrix involving a parameter, 9: 243-260 (1974)
- THOMPSON, R. C. AND MCENTEGGERT, P.: Principal submatrices. II. The upper and lower quadratic inequalities, 1: 211-243 (1968)
- THOMPSON, ROBERT C.: A converse to the Ostrowski-Taussky determinantal inequality, 52: 693-699 (1983)
- THOMPSON, ROBERT C.: Counterexamples concerning the diagonal elements of normal matrices, 49: 285-291 (1983)
- THOMPSON, ROBERT C.: Singular values and diagonal elements of complex symmetric matrices, 26: 65-106 (1979)
- THOMPSON, ROBERT C.: The Jacobi-Gundelfinger-Frobenius-Iohvidov rule and the Hasse symbol, 44: 189-196 (1982)
- THOMPSON, ROBERT C.: The Smith form, the inversion rule for 2×2 matrices, and the uniqueness of the invariant factors for finitely generated modules, 44: 197-201 (1982)
- THOMPSON, ROBERT C. AND FREED, LINDA J.: On the eigenvalues of sums of Hermitian matrices, 4: 369-376 (1971)
- THORPE, JOHN A.: See Heymann, Michael
- TIMLAKE, WILLIAM P.: See Lynn, M. Stuart
- TISENETSKY, M.: Determinant of block-Toeplitz band matrices, 85: 165-184 (1987)
- TISENETSKY, M.: See Lancaster, P.
- TISENETSKY, M.: See Lerer, L.
- TODA, MITSUHIKO: See Patel, Rajnikant
- TODD, JOHN: See Stenbridge, John R.
- TOGAWA, YOSHIO: A geometric study of the D -stability problem, 33: 133-151 (1980)
- TOMIYAMA, JUN: On the geometry of positive maps in matrix algebras. II, 69: 169-177 (1985)
- TORGASEV, ALEKSANDAR: Infinite graphs with the least limiting eigenvalue greater than -2 , 82: 133-141 (1986)
- TORSNEY, B.: Moment inequalities via optimal design theory, 82: 237-253 (1986)
- TOVAR, RAUL: See Nowosad, Pedro
- TOWERS, DAVID: Lie algebras all of whose proper subalgebras are nilpotent, 32: 61-73 (1980)
- TRAPP, G. E.: See Anderson, W. N., Jr.
- TRAPP, GEORGE E.: See Anderson, William N., Jr.
- TRAPP, GEORGE E.: See Mitra, Sujit Kumar
- TRAUB, J. F.: See Dekker, T. J.
- TREMON, MICHEL: Polynomes de degre minimum connectant deux projections dans une algebre de Banach: Minimum degree

- polynomials connecting two projections in a Banach algebra, 64: 115-132 (1985)
- TRENCH, W. F.: See Greville, T. N. E.
- TRENCH, WILLIAM F.: A note on solving nearly triangular Toeplitz systems, 93: 57-65 (1987)
- TRENCH, WILLIAM F.: On the eigenvalue problem for Toeplitz band matrices, 64: 199-214 (1985)
- TRENCH, WILLIAM F.: Solution of systems with Toeplitz matrices generated by rational functions, 74: 191-211 (1986)
- TROMBORG, B. AND WALDENSTROM, S.: Bounds on the diagonal elements of a unitary matrix, 20: 189-195 (1978)
- TROSKIE, C. G. AND CONRADIE, W. J.: The distribution of the ratios of characteristic roots (condition numbers) and their applications in principal component or ridge regression, 82: 255-279 (1986)
- TROTTEBERG, ULRICH: See Ries, Manfred
- TROTTEBERG, ULRICH AND WINTER, GERD: On faces and W -irreducible operators in finite-dimensional linear spaces, 33: 87-109 (1980)
- TRUEMPER, K.: Complement total unimodularity, 30: 77-92 (1980)
- TRUEMPER, K. AND CHANDRASEKARAN, R.: Local unimodularity of matrix-vector pairs, 22: 65-78 (1978)
- TRUONG, T. K.: See Hsu, I. S.
- TSAI, JASON S. H.: See Tsay, Yih T.
- TSAO, HOW: See Wright, Tommy
- TSATSOMEROS, MICHAEL: See Stern, Ronald J.
- TSAY, LIANG-HUEI: See Mairsaglia, George
- TSAY, YIH T., SHIEH, LEANG S., AND TSAI, JASON S. H.: A fast method for computing the principal n th roots of complex matrices, 76: 205-221 (1986)
- TSING, NAM KIU: The constrained bilinear form and the C -numerical range, 56: 195-206 (1984)
- TURISCO, JOANN: Quadratic mappings of spheres, 23: 261-274 (1979)
- TURISCO, JOANN S.: A family of quadratic forms associated to quadratic mappings of spheres, 65: 249-260 (1985)
- TURKEL, E.: Symmetric hyperbolic difference schemes and matrix problems, 16: 109-129 (1977)
- TURNER, KATHRYN: See Dennis, J. E., Jr.
- TURNER, R. E. L.: Perturbation with two parameters, 2: 1-11 (1969)
- TURNER, R. E. L.: See Barker, G. P.
- TURNER, R. E. L.: See Schneider, Hans
- UCHIMURA, KEISUKE: Perton-Frobenius theory of some algebraic equations associated with context free grammars, 78: 11-22 (1986)
- UHLIG, FRANK: A canonical form for a pair of real symmetric matrices that generate a nonsingular pencil, 14: 189-209 (1976)
- UHLIG, FRANK: A recurring theorem about pairs of quadratic forms and extensions: a survey, 25: 219-237 (1979)
- UHLIG, FRANK: Explicit polar decomposition and a near-characteristic polynomial: the 2×2 case, 38: 239-249 (1981)
- UHLIG, FRANK: Inertia and eigenvalue relations between symmetrized and symmetrizing matrices for the real and the general field case, 35: 203-226 (1981)
- UHLIG, FRANK: On the matrix equation $AX = B$ with applications to the generators of a controllability matrix, 85: 203-209 (1987)
- UHLIG, FRANK: On the nonsingular symmetric factors of a real matrix, 8: 351-354 (1974)
- UHLIG, FRANK: Relations between the fields of values of a matrix and of its polar factors: the 2×2 real and complex case, 52: 701-715 (1983)
- UHLIG, FRANK: Simultaneous block diagonalization of two real symmetric matrices, 7: 281-289 (1973)
- UHLIG, FRANK: See Carlson, David
- UHLIG, FRANK: See Johnson, Charles R.
- UHLIG, FRANK: See Ran, Andre
- UHRIN, BELA: A characterization of finite Chebyshev sequences in R^n , 18: 59-74 (1977)
- ULLMAN, F. D.: See Lovass-Nagy, V.
- UPTON, C. J. F.: See Russell, A. M.
- URSIĆ, SILVIO: Inverse matrix representation with one triangular array, 47: 151-157 (1982)
- USMANI, RIAZ A.: Explicit inverse of a band matrix with application to computing eigenvalues of a Sturm-Liouville system, 86: 189-198 (1987)

- USMANI, RIAZ A.: Properties of a five-band matrix and its application to boundary value problems, 4: 101-115 (1971)
- VALIAHO, HANNU: Criteria for copositive matrices, 81: 19-34 (1986)
- VAN DE VEL, H.: Numerical treatment of a generalized Vandermonde system of equations, 17: 149-179 (1977)
- VAN DEN DRIESCHE, P.: See Johnson, Charles R.
- VAN DEN DRIESCHE, P.: See Olesky, D. D.
- VAN DEN DRIESCHE, PAULINE: See Jeffries, Clark
- VAN DER PLAS, ADRIAAN P.: See Don, F. J. Henk
- VAN DER SLUIS, A.: Gershgorin domains for partitioned matrices, 26: 265-280 (1979)
- VAN DER SLUIS, A. AND VAN DER VORST, H. A.: The convergence behavior of Ritz values in the presence of close eigenvalues, 88: 651-694 (1987)
- VAN DER SLUIS, A. AND VELTKAMP, G. W.: Restoring rank and consistency by orthogonal projection, 28: 257-278 (1979)
- VAN DER VORST, H. A.: See van der Sluis, A.
- VAN DOOREN, P.: The computation of Kronecker's canonical form of a singular pencil, 27: 103-140 (1979)
- VAN DOOREN, P.: See Charlier, J.-P.
- VAN DOOREN, P.: See Paige, C. C.
- VAN DOOREN, PAUL: See Genin, Yves
- VAN DOOREN, PAUL AND DEWILDE, PATRICK: The eigenstructure of an arbitrary polynomial matrix: computational aspects, 50: 545-579 (1983)
- VAN EMDE BOAS, P.: See van Leeuwen, J.
- VAN GEEL, J.: See Puystjens, R.
- VAN GEEL, JAN: See Robinson, Donald W.
- VAN HUFFEL, SABINE AND VANDEWALLE, JOOS: Algebraic relationships between classical regression and total least-squares estimation, 93: 149-160 (1987)
- VAN HUFFEL, SABINE AND VANDEWALLE, JOOS: Subset selection using the total least squares approach in collinearity problems with errors in the variables, 88: 695-714 (1987)
- VAN KEMPEN, H. P. M.: Variation of the eigenvalues of a special class of Hermitian matrices upon variation of some of its elements, 3: 263-273 (1970)
- VAN LEEUWEN, J. AND VAN EMDE BOAS, P.: Some elementary proofs of lower bounds in complexity theory, 19: 63-80 (1978)
- VAN LINT, J. H.: Notes on Egoritsjev's proof of the van der Waerden conjecture, 39: 1-8 (1981)
- VAN LOAN, CHARLES: On estimating the condition of eigenvalues and eigenvectors, 88: 715-732 (1987)
- VAN LOAN, CHARLES: See Golub, Gene H.
- VAN LOAN, CHARLES: See Paige, Chris
- VAN LOAN, C.: A symplectic method for approximating all the eigenvalues of a Hamiltonian matrix, 61: 233-251 (1984)
- VANDERGRAFT, JAMES S.: A note on irreducibility for linear operators on partially ordered finite dimensional vector spaces: Collection of articles dedicated to Olga Taussky Todd, 13: 139-146 (1976)
- VANDERGRAFT, JAMES S.: Generalized Rayleigh methods with applications to finding eigenvalues of large matrices, 4: 353-368 (1971)
- VANDEWALLE, JOOS: See Van Huffel, Sabine
- VARAH, J. M.: A lower bound for the smallest singular value of a matrix, 11: 3-5 (1975)
- VARGA, R. S.: See Anderson, N.
- VARGA, R. S.: See Berman, A.
- VARGA, R. S.: See Neumaier, A.
- VARGA, R. S.: See Niethammer, W.
- VARGA, R. S., NIETHAMMER, W., AND CAI, D. Y.: p -cyclic matrices and the symmetric successive overrelaxation method, 58: 425-439 (1984)
- VARGA, RICHARD S.: A note on an open question on ω - and τ -matrices, 18: 45-52 (1977)
- VARGA, RICHARD S.: Nonnegatively posed problems and completely monotonic functions, 1: 329-347 (1968)
- VARGA, RICHARD S.: On a connection between infima of norms and eigenvalues of associated operators, 6: 249-256 (1973)
- VARGA, RICHARD S.: On diagonal dominance arguments for bounding $\|A^{-1}\|_{\infty}$, 14: 211-217 (1976)
- VARGA, RICHARD S.: On recurring theorems on diagonal dominance: Collection of articles dedicated to Olga Taussky Todd, 13: 1-9 (1976)

- VARGA, RICHARD S.: See Buoni, John J.
- VARGA, RICHARD S.: See Carlson, David H.
- VASERSTEIN, L. N.: On arithmetic subgroups of simple algebraic groups, 72: 93-96 (1985)
- VASERSTEIN, L. N. AND MAGURN, B. A.: Prestabilization for K_1 of Banach algebras, 95: 69-96 (1987)
- VAUGHAN, THERESA P.: Linear transformations of a finite field, 8: 413-426 (1974)
- VAUGHAN, THERESA P.: See Byrd, Ken
- VAUGHAN, THERESA P.: See Long, Andrew F.
- VAUGHAN, THERESA P.: See Long, Andrew F., Jr.
- VAVŘÍN, ZDENĚK: Multiplication of diagonal transforms of Loewner matrices, 90: 1-40 (1988)
- VAVRIN, ZDENEK: Inverses of Lowner matrices, 63: 227-236 (1984)
- VEIN, P. R.: A short survey of some recent applications of determinants, 42: 287-297 (1982)
- VEIN, P. R.: Identities among certain triangular matrices, 82: 27-79 (1986)
- VEINOTT, ARTHUR F., JR.: Extreme points of Leontief substitution systems, 1: 181-194 (1968)
- VELTKAMP, G. W.: See van der Sluis, A.
- VERE-JONES, D.: An identity involving permanents, 63: 267-270 (1984)
- VERFURTH, R.: The contraction number of a multigrid method with mesh ratio 2 for solving Poisson's equation, 60: 113-128 (1984)
- VERGESE, GEORGE C.: A "Cramer rule" for the least-norm, least-squared-error solution of inconsistent linear equations, 48: 315-316 (1982)
- VERGESE, GEORGE C.: See Lou, Sheldon X.-C.
- VESELIC, K.: On real eigenvalues of real tridiagonal matrices, 27: 167-171 (1979)
- VESELIC, K.: On the Jordan form in a unitary space, 8: 507-514 (1974)
- VETTER, WILLIAM J.: Vector structures and solutions of linear matrix equations, 10: 181-188 (1975)
- VIDAV, IVAN: The group of isometries and the structure of a finite-dimensional Banach space, 14: 227-236 (1976)
- VIDAV, IVAN: See Mizori-Oblak, Pavla
- VIDYASAGAR, M. AND VISWANADHAM, N.: Construction of inverses with prescribed zero minors and applications to decentralized stabilization, 83: 103-115 (1986)
- VIL'AR, ANTONIO: See Fujimoto, Takao
- VIRTANEN, ARI: See Kankaanpää, Hilikka
- VISWANADHAM, N.: See Vid, asagar, M.
- VITALE, RICHARD A.: See Najfeld, Igor
- VITORIA, JOSE: Block eigenvalues of block compound matrices, 47: 23-34 (1982)
- VITORIA, JOSE: Matricial norms and the difference between the zeros of determinants with polynomial elements, 28: 279-283 (1979)
- VON BELOW, JOACHIM: A characteristic equation associated to an eigenvalue problem on c^2 -networks, 71: 309-325 (1985)
- VON RANDOW, RABE: See Cottle, Richard W.
- VON ZUR GATHEN, JOACHIM: Permanent and determinant, 96: 87-100 (1987)
- VREUGDENHIL, R.: See Ran, A. C. M.
- WAKSMAN, Z.: See Galperin, A. M.
- WALDENSTROM, S.: See Tromborg, B.
- WALL, J. R.: Generalized inverses of stochastic matrices, 10: 147-154 (1975)
- WALL, J. R.: See Grone, Robert D.
- WALL, J. R.: See Haynsworth, Emilie
- WALTER, MARTIN E.: On the norm of a Schur product, 79: 209-213 (1986)
- WALTON, D. J.: See Hoskins, W. D.
- WANG, EDWARD T. H.: See Brenner, J. L.
- WANG, EDWARD TZU-HSIA: Maximum and minimum diagonal sums of doubly stochastic matrices, 8: 483-505 (1974)
- WANG, GUO RONG: A Cramer rule for minimum-norm (T) least-squares (S) solution of inconsistent linear equations, 74: 213-218 (1986)
- WANG, KAI: Characteristic polynomials of symmetric graphs, 51: 121-125 (1983)
- WANG, KAI: On the generalization of a retro-circulant, 37: 35-43 (1981)
- WANG, KAI: On the generalizations of circulants, 25: 197-218 (1979)
- WANG, KAI: On the group matrices for a generalized dihedral group, 39: 83-89 (1981)
- WANG, KAI: Resultants and group matrices, 33: 111-122 (1980)
- WANG, STUART SUI SHENG: See McKay, James H.

- WANSBEEK, TOM: See Neudecker, Heinz
- WARD, J. D.: See Narcowich, F. J.
- WARD, R. C.: See Berman, A.
- WARD, ROBERT C.: See Berman, Abraham
- WARD, ROBERT C.: See Scott, David S.
- WARNER, DAN: See Johnson, Charles R.
- WASAN, SIRI KRISHAN: A new proof of Korzhik's result on burst distributions, 59: 115-119 (1984)
- WASILKOWSKI, G. W.: See Weiss, N.
- WASOW, WOLFGANG: Arnold's canonical matrices and the asymptotic simplification of ordinary differential equations, 18: 163-170 (1977)
- WATERHOUSE, WILLIAM C.: A conjectured property of Hermitian pencils, 51: 173-177 (1983)
- WATERHOUSE, WILLIAM C.: A note on Fan's identity for symmetric bilinear forms, 90: 235-237 (1987)
- WATERHOUSE, WILLIAM C.: Elementary divisors of s -symmetric matrices, 93: 241-245 (1987)
- WATERHOUSE, WILLIAM C.: Linear maps preserving reduced norms, 43: 197-200 (1982)
- WATERHOUSE, WILLIAM C.: Linear transformations on selfadjoint matrices: the preservation of rank-one-plus-scalar, 74: 73-85 (1986)
- WATERHOUSE, WILLIAM C.: Real classification of complex quadrics, 48: 45-52 (1982)
- WATERHOUSE, WILLIAM C.: The codimension of singular matrix pairs, 57: 227-245 (1984)
- WATERHOUSE, WILLIAM C.: See Ma, S. L.
- WATERS, STEVEN R.: See Hill, Richard D.
- WATERS, STEVEN R. AND HILL, RICHARD D.: An inertial decomposition and related range results, 72: 145-153 (1985)
- WATERS, STEVEN R. AND HILL, RICHARD D.: Generalized controllability and inertia theory. II, 72: 161-166 (1985)
- WATERS, STEVEN R. AND HILL, RICHARD D.: On the inertia and range of transformations of positive definite matrices, 72: 155-160 (1985)
- WATFORD, LUCK J., JR.: The Schur complement of a generalized M -matrix, 5: 247-255 (1972)
- WATKINS, WILLIAM: Linear maps that preserve commuting pairs of matrices, 14: 29-35 (1976)
- WATKINS, WILLIAM: See Merris, Russell
- WATKINS, WILLIAM: See Rackusin, Jeffrey
- WATSON, GEOFFREY S.: A method for discovering Kantorovich-type inequalities and a probabilistic interpretation, 97: 211-217 (1987)
- WATSON, GEOFFREY S.: See Cabrera, Javier F.
- WATSON, L. T.: See Kelly, L. M.
- WATTERS, J. F.: Block triangularization of algebras of matrices, 32: 3-7 (1980)
- WATTERS, J. F.: Simultaneous quasi-diagonalization of normal matrices, 9: 103-117 (1974)
- WEBB, J. R. L.: Topological degree and A -proper operators: Proceedings of the symposium on operator theory (Athens, 1985), 84: 227-242 (1986)
- WEBBER, P. N.: See Lancaster, P.
- WEBBER, ROBERT P.: Matrix semigroups determined by unitarily invariant norms, 8: 141-156 (1974)
- WEGMANN, RUDOLF: See Kress, Rainer
- WEHRFRITZ, B. A. F.: Finite central height in linear groups, 17: 59-64 (1977)
- WEICHSEL, PAUL M.: Polynomials on graphs, 93: 179-186 (1987)
- WEIL, ROMAN L.: See Thompson, Gerald L.
- WEINBERG, DAVID A.: Canonical forms for symmetric tensors, 57: 271-282 (1984)
- WEINBERG, LOUIS: See Bruno, John
- WEINBERG, LOUIS: See Lawtence, Jim
- WEINBERGER, H. F.: Optimal numerical approximation of a linear operator, 52: 717-737 (1983)
- WEISS, N., WASILKOWSKI, G. W., WOZNIAKOWSKI, H., AND SHUB, M.: Average condition number for solving linear equations, 83: 79-102 (1986)
- WERNER, B.: Einschliessung des positiven Eigenvektors einer nichtnegativen, irreduziblen Matrix, 7: 351-359 (1973)
- WERNER, HANS JOACHIM: Charakterisierungen von monotonen Matrizen: Characterizations of monotone matrices, 60: 79-90 (1984)
- WERNER, HANS-JOACHIM: Drazin-monotonicity characterizations for property- n matrices, 71: 327-337 (1985)
- WERNER, HANS-JOACHIM: More on BLU estimation in regression models with possibly

- singular covariances, 67: 207-214 (1985)
- WERNER, HANS-JOACHIM: On the matrix monotonicity of generalized inversion, 27: 141-145 (1979)
- WERNER, HANS-JOACHIM: On weak r -monotonicity, 86: 199-209 (1987)
- WERNER, HANS-JOACHIM: See Neumann, Michael
- WERNER, WILHELM: A generalized companion matrix of a polynomial and some applications, 55: 19-36 (1983)
- WERNICK, ROBERT J.: Parametrized games and the eigenproblem, 3: 311-346 (1970)
- WESTWICK, R.: Spaces of linear transformations of equal rank, 5: 49-64 (1972)
- WHITE, NEIL L.: A unique exchange property for bases, 31: 81-91 (1980)
- WIBKER, E. A., HOWE, R. B., AND GILBERT, J. D.: Explicit solutions to the reverse order law $(AB)^+ = B_m^+ A_n^+$, 25: 107-114 (1979)
- WIELANDT, HELMUT: See Deutsch, Emeric
- WIELANDT, HELMUT W.: Helmut Wielandt, 71: 1-8 (1985)
- WIELANDT, HELMUT W.: See Brualdi, Richard A.
- WIENER, GERRY: A theorem concerning certain sign symmetric matrices whose inverses are Morishima, 68: 31-45 (1985)
- WIENER, GERRY: Some results concerning invertible Morishima and anti-Morishima matrices whose associated digraphs are trees, 66: 199-219 (1985)
- WIENER, GERRY: Some structural results concerning certain classes of qualitative matrices and their inverses, 48: 161-175 (1982)
- WIENER, GERRY: Spectral multiplicity and splitting results for a class of qualitative matrices, 61: 15-29 (1984)
- WIENS, DOUGLAS P.: On some pattern-reduction matrices which appear in statistics, 67: 233-258 (1985)
- WITALA, STEPHEN A.: Factorization of involutions in characteristic two orthogonal groups: an application of the Jordan form to group theory, 21: 59-64 (1978)
- WILD, P. AND NIETHAMMER, W.: Over- and underrelaxation for linear systems with weakly cyclic Jacobi matrices of index p , 91: 29-52 (1987)
- WILKER, J. B.: The Apollonian octets and an inversive form of Krause's theorem, 48: 131-144 (1982)
- WILKINSON, J. H.: Almost diagonal matrices with multiple or close eigenvalues, 1: 1-12 (1968)
- WILKINSON, J. H.: Global convergence of tridiagonal QR algorithm with origin shifts, 1: 409-420 (1968)
- WILKINSON, J. H.: Kronecker's canonical form and the QZ algorithm, 28: 285-303 (1979)
- WILKINSON, J. H.: On a theorem of Feingold, 88: 13-30 (1987)
- WILKINSON, J. H.: See Dongarra, J. J.
- WILKINSON, JAMES H.: Dedication, 88: 1-12 (1987)
- WILLEMS, JAN C.: Input-output and state-space representations of finite-dimensional linear time-invariant systems, 50: 581-608 (1983)
- WILLIAMS, A. C.: Boundedness relations for linear constraint sets, 3: 129-141 (1970)
- WILLIAMS, J. J.: See Shivakumar, P. N.
- WILLIAMSON, S. G.: Tensor contraction and hermitian forms, 2: 335-347 (1969)
- WILLIAMSON, S. G.: See Botta, Peter
- WILLOUGHBY, R. A.: The inverse M-matrix problem, 18: 75-94 (1977)
- WILLOUGHBY, R. A.: See Micchelli, Charles A.
- WILLOUGHBY, RALPH A.: See Cullum, Jane
- WILLSKY, ALAN S.: See Lou, Sheldon X.-C.
- WILSON, D. G.: See Gray, L. J.
- WILSON, PETER B.: Bounds for iterated normal matrices, 10: 7-18 (1975)
- WILSON, RICHARD M.: Incidence matrices of t -designs, 46: 73-82 (1982)
- WIMMER, H. K.: Two linear equations in formal power series, 29: 465-469 (1980)
- WIMMER, HARALD K.: An inertia theorem for tridiagonal matrices and a criterion of Wall on continued fractions, 9: 41-44 (1974)
- WIMMER, HARALD K.: Duality of finite abelian groups and a Jordan normal form of integer matrices, 90: 89-104 (1987)
- WIMMER, HARALD K.: Generalizations of theorems of Lyapunov and Stein, 10: 139-146 (1975)
- WIMMER, HARALD K.: Indefinite inner-product spaces associated with Hermitian polynomial matrices, 50: 609-619 (1983)

- WIMMER, HARALD K.: Inertia theorems for matrices, controllability, and linear vibrations, 8: 337-343 (1974)
- WIMMER, HARALD K.: Jordan-Ketten und Realisierungen rationaler Matrizen, 20: 101-110 (1978)
- WIMMER, HARALD K.: On Ostrowski's generalization of Sylvester's law of inertia, 52: 739-741 (1983)
- WIMMER, HARALD K.: Powers of a matrix and a formula for the moduli of its eigenvalues, 71: 339-340 (1985)
- WIMMER, HARALD K.: The algebraic Riccati equation: conditions for the existence and uniqueness of solutions, 58: 441-452 (1984)
- WIMMER, HARALD K.: See Flanders, Harley
- WIMMER, HARALD K.: See Ptak, Vlastimil
- WINOGRAD, S.: On multiplication of 2×2 matrices, 4: 381-388 (1971)
- WINOGRAD, S.: On the algebraic complexity of inner product, 4: 377-379 (1971)
- WINOGRAD, S.: See Auslander, L.
- WINOGRAD, SHMUEL: See Feig, Ephraim
- WINTER, GERD: See Ries, Manfred
- WINTER, GERD: See Trottenberg, Ulrich
- WITTING, H.: See Muller-Funk, U.
- WOLKOWICZ, HENRY: Some applications of optimization in matrix theory, 40: 101-118 (1981)
- WOLKOWICZ, HENRY: See Grone, Robert
- WOLKOWICZ, HENRY: See Johnson, Charles R.
- WOLKOWICZ, HENRY: See Merikoski, Jorma Kaarlo
- WOLKOWICZ, HENRY: See Smith, P. W.
- WOLKOWICZ, HENRY AND STYAN, GEORGE P. H.: Bounds for eigenvalues using traces, 29: 471-506 (1980)
- WOLKOWICZ, HENRY AND STYAN, GEORGE P. H.: More bounds for eigenvalues using traces, 31: 1-17 (1980)
- WONG, CHI SONG: Characterizations of products of symmetric matrices, 42: 243-251 (1982)
- WONG, CHI SONG: On the use of differentials in statistics, 70: 285-299 (1985)
- WONG, EDWARD T.: Involutory functions and Moore-Penrose inverses of matrices in an arbitrary field, 48: 283-291 (1982)
- WONG, R.: See Shivakumar, P. N.
- WORM, G.: See Cline, R. E.
- WORZ-BUSEKROS, ANGELIKA: Relationship between genetic algebras and semicommutative matrices, 39: 111-123 (1981)
- WOZNIAKOWSKI, H.: Roundoff-error analysis of a new class of conjugate-gradient algorithms, 29: 507-529 (1980)
- WOZNIAKOWSKI, H.: See Weiss, N.
- WRIGHT, MARGARET H.: See Gill, Philip E.
- WRIGHT, TOMMY AND TSAO, HOW: On an optimal solution for maximizing the probability of retention in PPS sampling, 67: 67-80 (1985)
- WU, CHIEN FU: On some ordering properties of the generalized inverses of nonnegative definite matrices, 32: 49-60 (1980)
- WU, PEI YUAN: Products of nilpotent matrices, 90: 227-232 (1987)
- WU, SHU HEI: See Cheng, Sui-Sun
- WYMAN, BOSTWICK F. AND SAIN, MICHAEL K.: On the zeros of a minimal realization, 50: 621-637 (1983)
- WYNN, H. P.: See Giovagnoli, A.
- WYNN, P.: Vector continued fractions, 1: 357-395 (1968)
- YAMADA, TAKEO AND LUENBERGER, DAVID G.: Generic properties of column-structured matrices, 65: 189-206 (1985)
- YAMAMOTO, TETSURO AND IKEDA, YASUHIKO: Inversion of band matrices, 24: 105-111 (1979)
- YANAI, HARUO: See Rao, C. Radhakrishna
- YANG, SHANG JUN: Structure of \mathcal{M} -classes in the semigroup of nonnegative matrices, 60: 91-111 (1984)
- YARLAGADDA, R.: Stabilization of matrices, 21: 271-288 (1978)
- YARLAGADDA, R. AND HERSHEY, J.: A note on the eigenvectors of Hadamard matrices of order 2^n , 45: 43-53 (1982)
- YCAR, BERNARD: Extremales du cone des matrices de type non negatif, a coefficients positifs ou nuls: (Extremales of the cone of nonnegative matrices with positive or zero coefficients), 48: 317-330 (1982)
- YEYIOS, A.: On the optimization of an extrapolation method, 57: 191-203 (1984)
- YEYIOS, A.: See Hadjidimos, A.
- YIP, E. L.: See Ballantine, C. S.

- YIP, E. L. AND BALLANTINE, C. S.: A note on stable matrices, **56**: 17-28 (1984)
- YIP, E. L. AND BALLANTINE, C. S.: Congruence and conjunctivity of matrices to their adjoints, **41**: 33-72 (1981)
- YOUNG, DAVID M.: See Jea, Kang C.
- YOUNG, DAVID M.: See Joubert, Wayne D.
- YOUNG, DAVID M. AND JEA, KANG C.: Generalized conjugate-gradient acceleration of nonsymmetrizable iterative methods, **34**: 159-194 (1980)
- YOUNG, N. J.: A bound for norms of functions of matrices, **37**: 181-186 (1981)
- YOUNG, N. J.: Linear fractional transformations in rings and modules, **56**: 251-290 (1984)
- YOUNG, N. J.: Norms of powers of matrices with constrained spectra, **23**: 227-244 (1979)
- YOUNG, N. J.: The rate of convergence of a matrix power series, **35**: 261-278 (1981)
- YOUNG, N. J.: The singular-value decomposition of an infinite Hankel matrix, **50**: 639-656 (1983)
- YOUNG, N. J.: See Ptak, Vlastimil
- YUAN, HONG: The k th largest eigenvalue of a tree, **73**: 151-155 (1986)
- ZABALLA, ION: Existence of matrices with prescribed entries, **73**: 227-280 (1986)
- ZABALLA, ION: Matrices with prescribed rows and invariant factors, **87**: 113-146 (1987)
- ZAKS, ABRAHAM: See Schwarz, Binyamin
- ZALINESCU, CONSTANTIN: On convex sets in general position, **64**: 191-198 (1985)
- ZAMPIRESCU, CHRISTINA M.: See Simoes-Perreira, J. M. S.
- ZANGWILL, W. I.: See Garcia, C. B.
- ZASSENHAUS, H.: See Fabrykowski, J.
- ZASSENHAUS, HANS: On the Cartan subalgebra of a Lie algebra, **52**: 743-761 (1983)
- ZELLINI, PAOLO: On some properties of circulant matrices, **26**: 31-43 (1979)
- ZELLINI, PAOLO: On the optimal computation of a set of symmetric and persymmetric bilinear forms, **23**: 101-119 (1979)
- ZELLINI, PAOLO AND MACK, ANGELA: On some theorems on circulant matrices, **41**: 137-149 (1981)
- ZELMANOWITZ, JULIUS M.: See Gustafson, William H.
- ZEMANEK, JAROSLAV: See Aupetit, Bernard
- ZENGER, C.: See Friedland, S.
- ZENGER, CHRISTOPH: Dual operator norms and the spectra of matrices, **58**: 453-460 (1984)
- ZENGER, CHRISTOPH: Minimal subadditive inclusion domains for the eigenvalues of matrices, **17**: 233-268 (1977)
- ZHANG, KE MIN: On Lewin and Vitek's conjecture about the exponent set of primitive matrices, **96**: 101-108 (1987)
- ZHANG, MOU CHENG: On graph compatible splittings of M -matrices, **91**: 177-179 (1987)
- ZHANG, MOU CHENG: See Chao, Chong Yun
- ZHANG, YIN: See Cao, Zhi Hao
- ZHANG, ZHEN YUE: See Jiang, Er Xiong
- ZHENG, YU FAN: The properties of decentralized systems under local feedbacks via polynomial models, **92**: 161-185 (1987)
- ZIEGLER, Z.: See Saxena, R. B.
- ZIETAK, K.: On a particular case of the inconsistent linear matrix equation $AX + YB = C$, **66**: 249-258 (1985)
- ZIETAK, K.: Properties of the approximate generalized inverses of a class of matrices, **92**: 259-272 (1987)
- ZIJM, W. H. M.: Generalized eigenvectors and sets of nonnegative matrices, **59**: 91-113 (1984)
- ZIMMERMANN, KATHARINA: See Henrici, Peter
- ZIMMERMANN, UWE: Duality for algebraic linear programming, **32**: 9-31 (1980)
- ZITNY, KAREL: See Marek, Ivo
- ZUKER, MICHAEL: See Tanny, Stephen M.
- ZWAS, GIDEON: See Goldberg, Moshe

